THE CONFEDERATE KING OF BATTLE: A COMPARISON OF THE FIELD ARTILLERY CORPS OF THE ARMY OF NORTHERN VIRGINIA AND THE ARMY OF TENNESSEE

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE
Military History

by

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B.S Excelsior College, Albany, NY 2001

Fort Leavenworth, Kansas
2008

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	**2. REPORT TYPE**	**3. DATES COVERED** *(From - To)*
12-12-2008	Master's Thesis	FEB 2008 – DEC 2008

4. TITLE AND SUBTITLE
THE CONFEDERATE KING OF BATTLE: A COMPARISON OF THE FIELD ARTILLERY CORPS OF THE ARMY OF NORTHERN VIRGINIA AND THE ARMY OF TENNESSEE

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
WILLIAM JEFFREY DANIELS, MAJOR, USA

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Army Command and General Staff College
ATTN: ATZL-SWD-GD
Fort Leavenworth, KS 66027-2301

8. PERFORMING ORG REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for Public Release; Distribution is Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

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15. SUBJECT TERMS
Confederate Field Artillery, Field Artillery Corps of the Army of Northern Virginia, Field Artillery Corps of the Army of Tennessee, Field Artillery during the American Civil War

16. SECURITY CLASSIFICATION OF:			**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
a. REPORT	**b. ABSTRACT**	**c. THIS PAGE**			**19b. PHONE NUMBER** *(include area code)*
(U)	(U)	(U)	(U)	153	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

MASTER OF MILITARY ART AND SCIENCE
THESIS APPROVAL PAGE

Name of Candidate: WILLIAM JEFFREY DANIELS, MAJOR, USA

Thesis Title: THE CONFEDERATE KING OF BATTLE: A COMPARISON OF THE FIELD ARTILLERY CORPS OF THE ARMY OF NORTHERN VIRGINIA AND THE ARMY OF TENNESSEE

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency.

ABSTRACT

THE CONFEDERATE KING OF BATTLE: A COMPARISON OF THE FIELD ARTILLERY CORPS OF THE ARMY OF NORTHERN VIRGINIA AND THE ARMY OF TENNESSEE, Major William J. Daniels, 153 pages.

This thesis compares and contrasts the field artillery corps of the Army of Northern Virginia and the Army of Tennessee. The purpose is to determine which field artillery corps was more effective on the battlefield and why. To answer this question several areas will be examined. The foundation of each army and its field artillery corps is one of these areas. The foundation includes militia forces, strength, recruiting, and governmental roles in the foundation of each army. The senior leadership of each army and its relationship with the Confederate government will be reviewed. Ordnance, equipment, logistics, and training of each army's field artillery corps are other areas that will be addressed. Finally, artillery leadership, organization, and tactics of each field artillery corps will be examined.

ACKNOWLEDGMENTS

I would like to express my sincere thanks to the members of my thesis committee, Dr. Terry Beckenbaugh, David Goebel, and Edwin Kennedy for their many hours of work and guidance towards the completion of this thesis. Had it not been for their efforts completion of this work would not have been possible. I would like to express my thanks to the Command and General Staff College faculty of staff group 1A, class 2008-02, LTC Chris Jose, Geoff Babb, Dr. Bill McCollum, Dr. Bill Kautt, and Bob Bayless. Their mentoring, support, and understanding was extremely beneficial in the completion of this thesis. I would also like to thank the members of my staff group for their support and friendship during this year. Finally, I would like to thank my family, particularly my father and mother, Jeffery and Sandra Daniels, and my wife, Lydia Daniels, for their support and encouragement during this year.

TABLE OF CONTENTS

Page

INTRODUCTION

Much has been written about the Confederate armies during the American Civil War. General Robert E. Lee's Army of Northern Virginia has gotten most of the attention of historians and writers over the years. There are several reasons for this. The Army of Northern Virginia has been identified with the Confederacy's effort for independence. Lee's army was much more successful on the battlefield than any other Confederate force. Its battles were fought near the capitals of both the North and the South, thus getting most of the attention and writing of both sides during the war. Much of the manuscript source materials on the Army of Tennessee were lost or destroyed over the years. One could also infer that writers prefer a winner over a loser.

However, especially in the relatively recent past, there has been work focused on the Army of Tennessee. One such book, *Two Great Rebel Armies* by Richard McMurry, compares and contrasts the Army of Northern Virginia and the Army of Tennessee. In this work McMurry cites reasons he believed caused the difference in effectiveness and performance between the two armies.

Additionally, there have been numerous books written about the field artillery corps of the Army of Northern Virginia. The artillerymen in the Army of Tennessee have received less attention. One recent and notable book on the subject is *Cannoneers in Gray* by Larry J. Daniel. However, unlike *Two Great Rebel Armies*, there has been no book written comparing the field artillery corps of the Army of Northern Virginia and the Army of Tennessee. Was there a difference in the effectiveness and performance of the respective field artillery corps as there was with the armies in general? If so, what were the reasons? This thesis will attempt to answer these questions.

To answer these questions a look at the foundation of each army and its field artillery corps will be examined. Topics addressed in the foundation include state militia strength, equipment, and experience levels, as well as, recruiting, governmental relationships with each army, and other areas. In addition to the foundation of each force, the senior leadership of each army will be examined to determine its effect on the performance of the army and its field artillery corps. Quantity and quality of ordnance, equipment levels, logistics, and training are all important components of each armies artillery that must be examined. The effectiveness of each field artillery corps is also going to be highly influenced by its leadership, organization, and tactical use. Each of these areas will be thoroughly examined to answer the question which field artillery corps was the most productive for the Confederacy during the American Civil War.

CHAPTER 1

FOUNDATIONS FOR FAILURE AND SUCCESS

The military forces of the Confederate States of America were comprised of twenty-five separate armies. Of these, two absorbed the vast majority of men and resources of the Confederacy. They were the Army of Northern Virginia and the Army of Tennessee.[1] Union General Ulysses S. Grant called these two forces the Confederates "main armies."[2] The Army of Northern Virginia has generally dominated the discussions on the American Civil War (1861-1865). Most of the literature written about the Confederacy has focused on the Army of Northern Virginia and its commanders. In addition, when it comes to the performance of these Confederate armies on the battlefield the Army of Northern Virginia also comes out on top. Richard McMurry in his book *Two Great Rebel Armies* has previously compared the two most prominent Rebel forces. However, which army had the best field artillery corps? Can it be surmised that based on performance the Army of Northern Virginia was a better army overall and the same can be said of its field artillery corps? The United States Army calls its field artillery branch "The King of Battle." This thesis will therefore attempt to answer the question which field artillery corps was the Confederate "King of Battle" and explain why this might have been the case. The durability of a home depends on the strength of its foundation; likewise, the quality of the components of an army depends on the strength of its foundation. Therefore, to begin to answer this question requires an examination of the foundations of each army since these foundations were the building blocks of each army's field artillery corps.

Each respective state military organization formed the core of the respective armies. There were two components to a state's military organization, the state militia, and privately organized and funded volunteer units. State militias, by Federal law, required all physically capable, free, white males between eighteen and forty-five years of age to join. The equipping, training, and organization of these militias varied from state to state. The state legislatures chartered the privately organized and funded volunteer units. Many of these units could trace their lineage back to the colonial or Revolutionary War period. To become a member of these elitist organizations one required an invitation from at least two current members and then needed to survive a vote from four-fifths of the unit. These units constantly drilled and had a very high esprit de corps. Many of these units owned their own drill halls and armories and used public grounds for their parade fields. They staged parades and fired salutes for dignitaries or holidays. As each state left the Union and joined the Confederacy, it began to call its forces to active duty. These forces came from three different categories, the aforementioned state militia and privately funded volunteer units, and new units, also called "volunteers." State militiamen comprised the bulk of these new units, since most state militia units only served for a short period. It would be from these new volunteer units that the Confederacy acquired most of its troops during the conflict. Many of these new units were also initially organized, equipped, and funded by private individuals. Eventually these state militia units transferred from the state into the Confederate Army, but until that happened they were under the control of their state. The difference in the background of the state militias from Virginia and Tennessee, which would become the

nucleus of the Army of Northern Virginia and the Army of Tennessee respectively, would have profound effects on the performance of each army during the war.[3]

The forces that later became the Army of Northern Virginia was created on 20 July 1861, and formed near Manassas Junction, Virginia, during the spring and summer of 1861. This Confederate army won many great victories during the years of 1861, 1862, and 1863. It fought gallantly against great odds, facing vastly stronger enemy numbers and resources, in 1864 and 1865. The brilliant General Robert E. Lee led the Army of Northern Virginia. The Army of Northern Virginia also had many other well-known and talented leaders, such as Thomas J. "Stonewall" Jackson, James Longstreet and J.E.B. Stuart. These leaders were highly respected in both the North and South. Lee's Army of Northern Virginia and the Confederate effort for independence are inextricably linked.[4]

The background of the state militia in Virginia that eventually formed the nucleus of the Army of Northern Virginia was strong. Virginia had the strongest military tradition of any state in the Confederacy. Following John Brown's raid on Harpers Ferry in October 1859 the state strengthened its military forces. During this time, the state authorized over $3,500,000 for the purchase and manufacture of weapons. By the time war broke out no other state in the Confederacy was better prepared than Virginia was. As early as 1849 Virginia issued four guns to nine different volunteer field artillery batteries across the state. Virginia governor John Letcher also did one other significant thing to prepare his state for war; on 23 April 1861, he appointed Robert E. Lee a major general in the state army and placed him in charge of preparing the state for war.[5] Until the Virginia forces transferred to Confederate control on 8 June 1861, Lee managed the

mobilization, organization, training, and deployment of all state forces.[6] Lee had much to work with. On paper the state of Virginia's militia was consisted of 143,155 officers and men plus 12,000 volunteers. This force included seventeen batteries of field artillery with 70 officers and 996 enlisted men; there was an additional twelve batteries of field artillery waiting for its weapons.[7]

The other main Rebel force was the Army of Tennessee. The forces that would later become the Army of Tennessee were created as a result of the Army Bill that was signed on 6 May 1861 by Tennessee Governor Isham G. Harris, the same day the state seceded from the Union. This bill created the Provisional Army of Tennessee and on paper, it consisted of 55,000 volunteers, including ten artillery batteries. The spring and summer of 1861 saw the formation of the Provisional Army. Once formed this state army was one of the best in the South, perhaps only second to Virginia's, and became the nucleus for the Army of Tennessee.[8] The Army of Tennessee coalesced during the fall of 1861 and spring of 1862.[9]

However, the state militia of Tennessee, unlike Virginia's militia, was non-existent before the war. The state of Tennessee abolished the militia years before the war began and started from nothing. On 9 May 1861, Governor Harris appointed a political ally, Gideon J. Pillow, as a major general and gave him command of the Provisional Army of Tennessee. Pillow was a lawyer by trade. He regarded himself as the most experienced military man in the state. If this statement were true, it would explain much for the differences between the Army of Northern Virginia and the Army of Tennessee. Pillow's military abilities were questionable at best. In reality, they were non-existent. During the Mexican War, so a story went, he had his men dig an entrenchment and pile

the dirt behind them rather than use it in front for protection. His courage, both physical and moral, was also non-existent. During the Battle of Fort Donelson in February 1862, he removed himself from command and fled, abandoning most of his men to Federal capture. During the battle of Murfreesboro on 2 January 1863, he hid behind a tree while his men charged a fortified Union position.[10] It was under this man's leadership a portion of the army that later became the Army of Tennessee got its start.

The initial training and experience of the leadership of these militia forces was another area of foundational discrepancy between these two Rebel armies. Just as the armies of Northern Virginia and Tennessee drew recruits from their respective states and others as well, they also acquired the vast majority of their experienced leadership, those who would conduct the training, from them as well. There were primarily three sources a state could obtain an experienced leader from, someone who was or had previously served in the U.S. Army was the best source, next best was an experienced militia man, and finally someone who had attended a military school but never had served on active duty. Many men that would serve had experience in one or more of these areas.[11]

Although no concrete data exists, the numbers available leave little doubt the Army of Northern Virginia, especially the units from Virginia, contained far more experienced leaders than did the Army of Tennessee. In 1861, there were 104 living graduates of West Point from Virginia; there were 184 from the other ten states that would join the Confederacy. Of the 1,132 officers on active duty in the U.S. Army in early 1861, 304 were from states that joined the Confederacy. Virginia alone was home for 137 of the 304 officers. South Carolina and North Carolina, which mainly contributed forces to the Army of Northern Virginia, had 76 of them. Combined, the

eastern Confederate states totaled 213 or 70.1 percent of the 304 officers. The six states that comprised the western Confederacy only had 55 or just 18.1 percent of the 304 officers. Nearly all of the officers who left the U.S. Army went home to serve with armies from their respective states.[12] In terms of experience Colonel E. P. Alexander, who served in both the Army of Northern Virginia and the Army of Tennessee, believed the Army of Tennessee was deficient when compared to the Army of Northern Virginia. He stated the Army of Tennessee had "less opportunities to learn from experience" and had fewer former U.S. Army officers to adequately "train their raw material."[13]

The second means of acquiring experienced leadership was from the trained militia in each state. As previously noted, Virginia had the most organized and best equipped militia of any state in the Confederacy. Of particular interest is the size of the Virginia militia officer corps. In late 1860, the Virginia militia on paper contained 5,393 officers in its 187 infantry regiments. There were 207 officers in the five cavalry regiments and 70 officers in the seventeen artillery batteries. This combined strength of 5,670 officers in late 1860 was larger than the entire Provisional Army of Tennessee of 5,000 soldiers in May 1861.[14]

The final means of acquiring trained leadership was from individuals who either attended or graduated from military schools and had not served on active duty. There were primarily two major military schools in the Confederacy at this time, the Virginia Military Institute (VMI) and the Citadel. Few records exist of the Citadel's pre-Civil War alumni. VMI, on the other hand, retained good records and clearly indicates what this school meant to the Confederacy, especially the Army of Northern Virginia, in term of providing experienced leaders. By the beginning of the war nearly 1,000 cadets

enrolled at VMI, of these 455 graduated. Of the 523 cadets did not graduate nearly all of them attended the school at least six months and thus acquired some knowledge of soldiering. Of these 978 cadets, 943 were from Virginia. By the end of 1861, Virginia had formed fifty-six regiments of infantry and artillery; twenty of these regimental commanders, over one-third, came from the Virginia Military Institute. During the war 1,781 of the 1,902 graduates of VMI from 1839 to 1865 served in the Confederate Army.[15]

Clearly, what all these numbers add up to is that the Army of Northern Virginia had a far larger crop of experienced, trained leaders to draw from and train its army than did its counterparts in Tennessee or any other Confederate army. When an experienced leader went down in the Army of Northern Virginia, another experienced leader often replaced him. This was not the case in the Army of Tennessee; the replacement more often than not had to learn his job from the beginning. Clearly, the Army of Northern Virginia's militia foundations were much stronger than the Army of Tennessee's and ultimately resulted in a much more competent and disciplined military force.[16]

The foundations for the field artillery corps of the Army of Tennessee were also far inferior to its counterpart in Virginia. Of the batteries created by the Army Bill, only one was organized and drilled. It trained with just one obsolete iron six-pounder.[17] All totaled the state of Tennessee possessed exactly four guns, an old unserviceable six-pounder, a damaged twelve-pounder, and two obsolete six-pounders. Virginia, in comparison, had 290 field artillery pieces.[18] On 9 May 1861, Pillow had 5,000 men in the Provisional Army of Tennessee and not one battery of artillery.[19] To make matters worse, unlike the artillery militia traditions in the east, there was none in the west except

for the Louisiana Washington Artillery of New Orleans. To add insult to injury this battalion of four batteries eventually transferred to the Army of Northern Virginia early in the war. The unit left behind twenty artillerymen to form a fifth battery that fought with the Army of Tennessee. Because of having no militia, the field artillery corps of the Army of Tennessee coalesced around volunteer batteries with little to no training, unlike its counterpart in the Army of Northern Virginia. The only exception to this was the aforementioned 5th Battery of Washington Artillery of New Orleans and the Washington Artillery of Augusta, Georgia.[20]

In contrast to the lack of an experienced artillery militia nucleus for the Army of Tennessee, the Army of Northern Virginia had a number of experienced militia batteries to build its field artillery corps. In Virginia alone, there were the Richmond Howitzers, (formed on 9 November 1859), the Norfolk Light Artillery Blues, the Portsmouth Light Artillery, and Delaware Kemper's Artillery of Alexandria. These militia artillery units had superior training, esprit de corps, continuity of command and control, and superior organization and formed the core of the field artillery corps of the Army of Northern Virginia.[21]

There was also a difference in the ability to recruit volunteers into the artillery units in the Army of Tennessee versus the Army of Northern Virginia. The Army of Northern Virginia, having the stronger artillery traditions and artillery militia units, more effectively recruited volunteers into its units. Militia artillery units in the east were social organizations and often threw parties and had other social events. Being a member of these units put one in an elite social organization. There were also more artillery units in the east for a perspective artillerist to join. This combination of social status and choice

made the job of recruiting artillerymen in the east much easier as illustrated by their strength numbers.[22] The Richmond Howitzers, for example, had no difficulty filling its ranks. Frederick Daniel, a member of the battery states, "There was great eagerness for joining the ranks of the Howitzers, as the artillery branch seemed to exercise a decided fascination, and accordingly their organization was speedily filled beyond the limits set for the original company."[23] There was also a surprisingly high intellectual atmosphere in the early artillery camps of the Army of Northern Virginia. Young businessmen and clerks from Richmond, Virginia provided the bulk of recruits for the three companies that comprised the Richmond Howitzers in early 1861. There were a large number of college men in the ranks. Robert Stiles, a major in the field artillery corps of the Army of Northern Virginia states, "It was strikingly true that in 1861 the flower of our educated youth gravitated toward the artillery." Stiles graduated from Yale University and found the intellectual life in the artillery camp "as high and brilliant and intense as any I had ever know[n]."[24] The Rockbridge Artillery (formed on 21 April 1861) is another example of the draw to artillery in the east. According to a member of the unit, it drew "the very best young men in the state." They were also attracted to their first commander, William Nelson Pendleton, who later became the artillery chief for the Army of Northern Virginia. Pendleton's influence was significant and induced "the very best material for a battery" to join the unit.[25] As an example of the service requirements, initial enlistments in the Stuart Horse Artillery were for one year. Also under the Conscription Act of the Confederate Congress, a six-gun battery was to be comprised of five officers and 150 enlisted men.[26]

The artillery recruiting market was quite different in the west. Most volunteers joined units from their local area, same as in the east, but since there were fewer artillery units in the west to join, and artillery was often not an option. Therefore, most volunteers went into either the infantry or cavalry. In addition, unlike in the east, artillery lacked the romanticism and elitism of the cavalry. The artillery held in much more prestige in the professional military than infantry or cavalry before the war. Field artillery also required technical skills that many did not possess; it was therefore easier to join the infantry or cavalry. The significant numbers of volunteers recruited were young men from cities with an average age of twenty-two.[27]

During the war the Army of Tennessee's field artillery corps suffered from low strength, in addition to poor recruiting, in comparison to the field artillery corps of the Army of Northern Virginia. In May 1862, prior to the evacuation of Corinth, Mississippi, the strength of the field artillery corps of the Army of Tennessee was 1,451 effectives.[28] By comparison, as early as October 1861 the size of the artillery force in the eastern army in Virginia was 2,545 effectives.[29] The field artillery corps in Tennessee had only fifty-seven percent of the personnel of the Virginia force. By March 1863, the field artillery corps in the Army of Tennessee had increased to 2,478 soldiers.[30] The size of the force in Virginia had also increased to 4,064 artillerymen by February 1863.[31] Tennessee now had sixty-one percent of the force in Virginia. In August 1863, the field artillery corps in the Army of Northern Virginia grew to 5,901 effectives while in the Army of Tennessee in October 1863 there were 3,989 artillerymen.[32] The Army of Tennessee still had less than sixty-eight percent of the personnel in the field artillery corps in the Army of Northern Virginia. By February 1864, the number of effectives in the field artillery corps

in Robert E. Lee's army had fallen to 4,893 soldiers, a loss of seventeen percent from the August 1863 numbers.[33] By comparison, in April 1864 the field artillery corps in the Army of Tennessee fell to 2,571 artillerymen, a loss of thirty-six percent from the October 1863 numbers.[34] Throughout the war not only did the field artillery corps of the Army of Tennessee have less artillerymen than did the Army of Northern Virginia, it was less able to replace its losses.

In addition to strength and recruiting advantages for Lee's army, the location of the Confederate capital in the Army of Northern Virginia's area of operations was also advantageous. Montgomery, Alabama was the original Confederate capital. After only three months, the capital moved to Richmond, Virginia. Had the Confederate capital remained in Montgomery it would have been more closely located to the center of the Confederacy and perhaps removed some of the importance having the capitol in Richmond placed on the eastern battlefields and subsequent neglect of the west.[35] Moving the Confederate capital to Richmond ensured focus on that area of operations. The eastern battlefields of the Army of Northern Virginia were very close to the Confederate capital in Richmond, many on its very doorstep. These battles, and Lee's army, were more closely scrutinized, and often supported, by the Confederate government and the Richmond press. This is only natural given the fact that if the Army of Northern Virginia failed to protect the capital the government officials and their families would have to flee the city and their homes. The perception of the Confederate government may have been, the closer the threat the more attention it is given.[36] The Confederate capital was also only about 100 miles from the Union capital in Washington, D. C. Many believed that capturing the enemy capital would end the war; this belief also

helped focus concerns on the eastern theater.[37] By contrast, the Army of Tennessee fought its battles many hundreds of miles from the Confederate capital and was therefore sometimes neglected but also free from micromanagement.

Terrain in the area of operations also played a factor in the success and failure of each army. The Army of Northern Virginia operated in an area that had several favorable terrain features. Many of the rivers that ran across Virginia flowed from west to east in a relatively straight line, parallel to Lee's army's defensive lines.[38] Since the rivers ran east to west the Federals, unless coming from the Peninsula of Virginia, would have to cross them to attack Lee's army. Federal advances were easily parried at the few well-known fords that formed natural choke points.[39] The Shenandoah Valley was also an operational advantage for the Army of Northern Virginia. The valley and ridge system ran southwest to northeast and provided shielding and an avenue for turning movements to the Army of Northern Virginia as it moved northward.[40] In contrast, terrain in the Army of Tennessee's area of operations was detrimental to its effectiveness. The rivers in its area benefited the Federal forces. They provided Union forces unbreakable avenues of approach deep into its territory while limiting the Army of Tennessee's ability to move. The rivers ran from north to south and thus proved worthless to the defense.[41] The Great Valley in the west, between the Blue Ridge Mountains and the Allegheny mountains, was also a detriment to the Army of Tennessee. Any Union force moving south through East Kentucky into this valley would cut the vital Virginia and Tennessee railroad.[42]

The manner in which each state's army transferred into Confederate service, and army's leadership handling the transfer influenced the effectiveness of each army.

Robert E. Lee commanded the volunteer militia forces in Virginia, as noted. Governor Letcher placed Lee in command of all Southern troops in Virginia on 7 May 1861. On 10 May 1861, the Confederate Secretary of War Leroy Walker approved Lee's command over all forces in Virginia. The transfer of those that volunteered from the Virginia state army into Confederate service went quickly and effortlessly. Those that did not volunteer remained in the militia and eligible for the draft under the Confederate conscription laws.[43]

In contrast to the smooth transfer of the Virginia militia, the Provincial Army of Tennessee did not transfer to Confederate control until 31 July 1861. The transfer was slow and not completed until the end of October 1861. However, even as late as January 1862, there was still quibbling between the state of Tennessee and the Confederate government over issues of control. Poor coordination between the state of Tennessee and the Confederate government in assigning areas of responsibility in the west; this resulted in the poor emplacement of troops in the region and was ultimately a detriment to the regions defense. As late as the end of September 1861, many troops drilled with sticks and still received no pay. The effects on the moral of the army were obviously negative and the transfer delay hampered the war preparations in Tennessee.[44] The poor emplacement of troops and the subsequent adverse effects in Tennessee was a result of both the poor transfer of control and the insistence of President Davis that the entire region be defended.

In addition, there were problems with the appointment of artillery officers. The Army Bill of 6 May 1861, that created the Provisional Army of Tennessee, stated that the governor appointed all field artillery officers, and then the state General Assembly

confirmed the picks. The state did not want to give up this control and the Confederate government, correctly so, wanted the authority to appoint whom it saw fit.[45] This squabble and the poor relations Davis had with his commanders in the west may have contributed to the slower promotion rate of artillery officers in the Army of Tennessee versus their counterparts in the Army of Northern Virginia.

Another key aspect of the transfer of state forces to the Confederacy was the manner in which the commander of each state's army handled it. In late April 1861, the Confederate government was fearful General Lee of the Virginia state militia would take offense being subordinated to a Confederate brigadier general, which at this time was the highest rank in the Confederate army. The Confederate government was leery of this because Virginia had not yet ratified the military agreement between itself and the Confederacy. Lee clearly saw the importance of unity and cooperation between Virginia and the Confederate government and made clear his personal situation when making its decisions was not their concern. Due to Lee's leadership and foresight, this process went smoothly and quickly. By 14 May 1861, Lee received appointment to brigadier general in the Confederacy and the good working relationship between Lee and the Confederate government was clearly established.[46] This good relationship with the Confederate government paid big dividends for the Army of Northern Virginia during the war.

General Gideon Pillow, commander of the Provisional Army of Tennessee saw things quite differently. Pillow was vain and did not want to lose control of anything. He protested bitterly the transfer of his forces to the Confederacy and his concurrent reduction in rank to a brigadier general. After losing this fight with the government, he deeply resented his demotion and argued constantly with his new boss General Leonidas

Polk. The arguments between these two men distracted them from the employment and organization of the army, and seriously affected its ability to perform its mission in the first year of the war. General Albert S. Johnston did not help alleviate these matters. This episode also set in motion a disastrous precedent of the leadership of the Army of Tennessee feuding amongst itself and with the Confederate government. When describing the leadership of General Pillow and the start he gave the Army of Tennessee an editor with the Arkansas State Gazette probably said it best: "We know Gen. Pillow of old, and his ignorance, inefficiency, and general disqualification for military command, are only equaled by his perverseness as an insubordinate and pestilent mischief maker. His appointment was a mistake which can only be remedied by striking his name from the roll of Confederate generals."[47]

Political issues also had a detrimental effect on the Army of Tennessee; of particular note are the struggles over the border states of Missouri and Kentucky. There were questions over defense priorities and confusion over the borders of the Confederacy. These questions, especially over Kentucky, paralyzed the operations of the Army of Tennessee for months in 1861 and negatively influenced them for the entire war.[48] When Leonidas Polk ordered the invasion of Kentucky in early September 1861, he violated Kentucky's neutrality and lost that state as a buffer zone for most of the northern border of Tennessee.[49] Political turmoil in the state of Tennessee also had a negative impact on the army. The regions of western Virginia and eastern Tennessee had strong pro-union residents that resulted in resistance to Confederate control. Western Virginia was not strategically important to the Army of Northern Virginia and received little aid, although there were some military efforts in the region early in the war. By contrast, Eastern

Tennessee was operationally important to the Army of Tennessee and the Confederacy. The area contained important concentrations of lead, coal, and saltpeter. It also produced over ninety percent of the Confederacy's copper. The strategically important Virginia and Tennessee Railroad also ran through the area. Therefore, troops were continually siphoned off to protect this area, thereby draining the army's strength and expanding its defensive lines.[50]

To compound the political issues and large area of responsibility, the Confederate government often did not prioritize missions for the Army of Tennessee further complicating matters. When Joseph E. Johnston, as overall commander in the region, gave the Confederate government in 1863 a choice: hold Tennessee or the Mississippi River, since he knew he could not hold both. The Confederate government told Johnson directly that the Mississippi River was vital. The government seemed less able to understand the complexities of the west in comparison to the east, the difficulties of traversing the western Confederacy, and the difficulties this placed on the army in defending it. Western railroads could not move anything anywhere quickly and its network of roads was crude and traversed rugged barren terrain. Exacerbating the difficulties in the west even further, the Confederate government ignored its own chain of command in the west and often sent and received orders and reports to and from subordinate commanders and bypassed the commanding general completely.[51]

Another foundational detriment to the Army of Tennessee, and benefit for the Army of Northern Virginia, was the way in which the Confederate government organized its military forces. Confederate president Jefferson Davis divided the Confederacy into various departments. Each department received an area of the Confederacy to defend and

had its own commanding general and assigned troops. The basic theory behind this was if Federal troops threatened any department, Confederates from another department could be shifted to reinforce the threatened area. Given the limited resources of the Confederacy, the South did not have adequate forces to defend the entire nation and Davis believed this approach was the best way to overcome this inadequacy. For this policy to work several things needed to take place. First, Union forces could only conduct one major offensive operation at a time. Second, adequate intelligence of enemy troop movements would be required to predict accurately the location of the Federal offensive. In addition, there must be cooperation between the various departments and sufficient time available to send the reinforcing troops to the threatened area. Davis assumed these factors were true, in reality they were not and would prove especially problematic to the Army of Tennessee more so than with the Army of Northern Virginia.[52]

The first problem with the departmental system theory was that Union forces had adequate strength to conduct more than one offensive at a time. When Federal forces conducted simultaneous offensives, as they did on several occasions such as the campaigns in both Virginia and Georgia during the winter of 1863, factors in the west exacerbated the problem. One of these factors was a lack of communication between the Confederate government and the various commanders of the Army of Tennessee, especially when compared to the level of communication between General Robert E. Lee and the government. Lee was in constant communication with the government, had a much better relationship with President Davis than any commander of the Army of Tennessee, and his area of operations was much closer to the Confederate capital. This

free-flowing communication between the army commander and the government was reversed in the west. As a result, Davis better informed and understanding of events in the east and often much more focused there as well.[53]

The sizes of the departments varied wildly and lacked clear and distinct boundaries. Albert Sidney Johnston assumed command of Department No. 2 on 10 September 1861. Department No. 2 encompassed a huge area. The states of Tennessee and Arkansas fell within its boundaries as well as a portion of the State of Mississippi west of New Orleans, Jackson, Mississippi and the Great Northern and Central Railroad. The Indian country west of Missouri and Arkansas was also in its borders.[54] The vastness and vagueness of its boundaries was a thorn in the side of the Army of Tennessee the entire war. The Army of Northern Virginia was not plagued with such a large area of operations nor questionable boundaries.

Another problem with the departmental system was the assumption that department commanders would cooperate with one another and send reinforcements where needed. This too proved to be a false assumption and the bickering and quarrels out west exacerbated this problem. Commanders sometimes ignored the government's request to send troops to another area and more often debated telegraphically over the move. The result was often the troops, if sent at all, arrived too late to do any good. Davis did not help the situation by often giving vague orders such as send "any available" troops or send help "if practicable." To complicate matters the western departments were divided in a way that did not complement unity of effort. For example in 1863 the west and east banks of the Mississippi River were commanded by two different departments. Both commands had different priorities that resulted in an uncoordinated defense of the

vital river. Major General Ulysses S. Grant took advantage of this and used the west side of the river to conquer the eastern side.[55] President Davis was very aware of the need for division commanders to cooperate in order for this strategy to succeed. On 12 November 1861, Davis sent his friend Leonidas Polk a letter stating success in the large area of operations under General Albert S. Johnston depended primarily on the cooperation of the division commanders. Polk was one of Johnston's division commanders and did not cooperate with him.[56] General Lee did not experience lack of unity to any great extent, certainly not to the extent experienced in the Army of Tennessee.

A final problem with the departmental theory of operations was it required quick deployment of troops to a threatened area. This requirement also hampered the Army of Tennessee and aided the Army of Northern Virginia. Virginia had a much more extensive railroad network and much smaller area of operations that allowed for more rapid movement of troops to threatened areas. The Army of Tennessee required much more time to move troops due to the greater distances and lack of rail lines it had available. Virginia had eight different rail lines running through the state; Tennessee had two.[57] In addition, by early 1862, vital installations along the Cumberland and Tennessee Rivers were in Union hands and the rivers no longer acted as avenues to move troops and material.[58]

The infrastructural differences, rail being one of these, between the eastern and western Confederacy were another foundational difference between the Army of Northern Virginia and the Army of Tennessee. Virginia clearly was the most economically developed state in the Confederacy. Virginia produced over 32.5 percent of the entire Confederacy's manufactured goods. More goods were produced in

Richmond alone than in six other Confederate states. The rest of Virginia still produced twice as many goods as Tennessee even if Richmond were removed from the equation. Virginia produced three times as much bar, sheet, and railroad iron as did Tennessee. She also had a larger white population and military age white male population than any other state. Virginia's rail system was also the best in the South. Her rail lines were of a standard gauge, meaning that troops and supplies could travel on one train and would not have to unload from one train to another as they moved. This was not the case in Tennessee. [59]

In the west because of the overburdened rail system, artillery rarely transported via rail. This had a detrimental effect on the men due to traveling distances and weather conditions. Some men died of exposure en route. This also took a severe toll on the animals moving the artillery as well and had a detrimental effect on the movement of batteries. By November 1864, prior to the Tennessee campaign, the horse situation in the Army of Tennessee had become critical. Mules and oxen replaced unserviceable horses and that significantly reduced the mobility of the artillery and its ability to move on the offense. In some cases, batteries were immobile due to the condition of their horses.[60] In many cases, even if rail transportation was available, troop and supply movements required changing railroad cars several times because the lines had different gauge steel. The rail lines in Virginia also primarily ran in the center of the state where the Army of Northern Virginia did most of its fighting. All of these factors add up to the fact that the Army of Northern Virginia had a much better base of support and infrastructure to keep itself supplied and move men and material than did the Army of Tennessee, which greatly enhanced its war fighting capabilities over its western counterpart.[61]

In addition to these concrete and easily judged or codified foundational differences in the two great Rebel armies a final piece to the puzzle is much more difficult to substantiate but equally interesting, the myth of Southern military dominance, especially that of the Virginia Cavalier. There was a relatively wide spread belief in the mid-nineteenth century that the South in general, Virginia in particular, was aristocratic in nature since it was believed they were descendants of the English aristocracy or "Cavaliers." Union General Ulysses S. Grant acknowledged this belief in his book *Personal Memoirs of U. S. Grant*. Discussing commanders of large armies, he states, most people cloth these commanders with almost "superhuman abilities." Grant continues, "A large part of the National army, and most of the press of the country, clothed General Lee with just such qualities."[62] The Cavalier lived by different set of values than did the more democratic Northerners. The Virginian gentlemen was believed to be more mannerly, chivalrous, skillful in riding, fencing, shooting, more likely to defend their "honor," and most importantly more genetically fitted for military life. [63]In Virginia forty-seven percent of the white population engaged in farming as its primary occupation.[64] Many Southerners viewed Northern society as more democratic in nature, more industrialized and urbanized, more focused on materialism and therefore less warlike and acceptable to military discipline. These beliefs were widespread both North and South. The most industrialized areas of the North, Pennsylvania, New York, New Jersey, and New England would be where most of the soldiers who came to fight Robert E. Lee's army would come from. Therefore, the Southern soldiers with the greatest self-esteem and confidence would be fighting the Union soldiers from areas that produced those less suited to be soldiers. Results from the early battles in Virginia seemed to

substantiate these beliefs. Federal forces in the east began to see themselves as inferior to the Army of Northern Virginia. This belief may have played a role in Major General George B. McClellan's cautiousness. Not only did he believe the army he faced was superior in numbers but also it was also superior in ability. This belief was passed down to his subordinates and continued to influence the army long after his replacement.[65] Most Northerners took Southerners very seriously, perhaps even fearing them. These feelings of awe of the Southerner and for his fighting abilities and character may very well have parlayed into military significance, especially for Virginia.[66] In his memoirs Grant states, "There were good and true officers who believe now that the Army of Northern Virginia were superior to the Army of the Potomac man to man."[67]

Western Yankees did note share this inferiority complex. Most of them came from more rural states such as Wisconsin, Indiana, Iowa, and Illinois. They were not plagued with self-doubt when compared to the Federal army in the east. They also did not have to fight the dreaded Virginia Cavaliers in battle. Both Northerners and Southerners shared these beliefs and therefore so did the Confederates in the Army of Tennessee. Early Union success in the west, followed by more Union victories in the west, reinforced the Western Federals confidence and increased their morale at the same time substantiating and increasing the Western Confederate's feelings of inferiority. Troops were recruited and deployed in most cases to areas near their point of origin. At times, the Army of Northern Virginia was comprised of over forty percent of units from Virginia. The absence of Virginians in the Army of Tennessee deprived them of mythical aura of the Army of Northern Virginia. To add insult to injury the Army of

Tennessee did not experience a major victory until September 1863 at Chickamauga. Reinforcements from the Army of Northern Virginia played a key role in this victory.[68]

Also for consideration are the abilities, or lack thereof, of the commanding generals of the Federal forces faced by both Confederate armies. Initially in the war the Union generals in the east did not seem to be up to the same level of performance as their counterparts in the west. Perhaps this difference in performance was due in large part to the abilities of Robert E. Lee and the Army of Northern Virginia and the lesser abilities of the commanders of the Army of Tennessee and that army. It was not until the arrival of Grant and Sherman in the east that the Army of Northern Virginia face the same high caliber of leadership the Army of Tennessee had been facing from the onset of the war.[69]

The focus of the Union war effort is also a key factor. Union Generals Winfield Scott and Henry Halleck believed the key to victory lay in the western Confederacy rather than in the eastern theater. They saw that the seizure of the vital Mississippi River would cut the Confederacy in two, sever vital rail lines, and make it impossible to keep the western Confederacy supplied. Halleck also concluded that the capture of Richmond would make no real strategic difference in the outcome of the war. To pull the resources necessary to accomplish the capture of Richmond may have also opened Washington, D. C. to capture. A "swapping of queens", as Halleck put it, would not accomplish much. Instead, if key western cities were captured along the Mississippi the Confederacy could not last long. Therefore, with the adoption of this western strategy, the "Lincoln-Halleck" policy, Federal forces focused their main effort on the western Confederacy for the final two and a half years of the war. To support this effort Grant waged his

campaigns in Virginia from 1864-1865 to keep Robert E. Lee from being able to reinforce other areas of the Confederacy, particularly the west.[70]

This look at the foundation of each army and the multitude of influencers that affected each army clearly indicates the Army of Northern Virginia had a much stronger base on which to build its army than did the Army of Tennessee. This base includes advantages in militia foundations and initial leadership, experienced leadership for training, recruiting, area of operations, governmental and state support, enemy considerations, and issues concerning confidence and esprit de corps. This base would be the foundation on which the field artillery corps of each army would build itself.

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[1] Richard McMurry, *Two Great Rebel Armies* (Chapel Hill: The University of North Carolina Press, 1989), 1.

When discussing the Army of Northern Virginia, it is initially the Army of the Potomac while under the command of Joseph E. Johnston. When discussing the Army of Tennessee, it is composed of forces that were initially the Army of Mississippi and the Army of Central Kentucky.

[2] Grant, *Personal Memoirs of U. S. Grant* (Cleveland: The World Publishing Company, 1952), 365.

[3] McMurry, 74-76.

[4] McMurry, 2-3.

[5] Jennings Cropper Wise, *The Long Arm of Lee* (Lynchburg: J. P. Bell Company, Inc., 1915), 62; McMurry, 77.

[6] Douglas S. Freeman, *R. E. Lee: A Biography, vol. 1* (New York: Charles Scribner's Sons, 1934), 463-464.

[7] McMurry, 80.

[8] Larry Daniel, *Cannoneers in Gray: The Field Artillery of the Army of Tennessee, 1861-1865* (Tuscaloosa: The University of Alabama Press, 1989), 3.

[9] McMurry, 98.

[10] McMurry, 78-79.

[11] McMurry, 93.

[12] McMurry, 93-94.

[13] Edward Porter Alexander, *Military Memoirs of a Confederate: A Critical Narrative* (New York: Da Capo Press, 1993), 451-452.

[14] McMurry, 98.

[15] Freeman, *Lee's Lieutenants,* 718; McMurry, 99-100.

[16] McMurry, 105.

[17] Daniel, *Cannoneers in Gray*, 3.

[18] McMurry, 81.

[19] *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies.* (Washington: Government Printing Office, 1880-1901), Series I, vol. LII, pt. 2, 90. (hereafter cited as O.R.; unless otherwise indicated, all citations are to Series I)

[20] Wise, 91-94.

[21] Frederick S. Daniel, *Richmond Howitzers in the War* (Gaithersburg: Butternut Press, 1891), 9; Daniel, *Cannoneers in Gray*, 7-8.

[22] Daniel, *Cannoneers in Gray*, 7.

[23] Daniel, *Richmond Howitzers in the War*, 11-12.

[24] Robert Stiles, *Four Years Under Marse Robert* (New York: The Neale Publishing Company, 1904), 48-49.

[25] William T. Poague, *Gunner with Stonewall* (Wilmington: Broadfoot Publishing Company, 1989), 4-5.

[26] Robert J. Trout, ed., *Memoirs of the Stuart Horse Artillery Battalion* (Knoxville: The University of Tennessee Press, 2008), 19.

[27] Daniel, *Cannoneers in Gray*, 7, 9.

[28] O.R., vol. X, pt. II, 548.

[29] O.R., vol. V, 932.

[30] O.R., vol. XXIII, pt. II, 733.

[31] O.R., vol. XXV, pt. II, 650.

[32] O.R., vol. XXIX, pt. II, 681; O.R., vol. XXXI, pt. II, 656.

[33] O.R., vol. XXXIII, 1191.

[34] O.R., vol. XXXII, pt. III, 731.

[35] Wilfred B. Yearns, *The Confederate Congress* (Athens: The University of Georgia Press, 1960), 11-13.

[36] McMurry, 56, 6, 58.

[37] Steven E. Woodworth, *Jefferson Davis and His Generals: The Failure of Confederate Command in the West* (Lawrence: University Press of Kansas, 1990), 19-20.

[38] McMurry, 14.

[39] James M. McPherson, *Ordeal By Fire: The Civil War and Reconstruction, 2nd ed.* (New York: McGraw-Hill, Inc., 1992), 187-188.

[40] McMurry, 17.

[41] Woodworth, *Jefferson Davis and His Generals*, 21.

[42] McMurry, 17.

[43] Rembert W. Patrick, *Jefferson Davis and His Cabinet* (Baton Rouge: Louisiana State University Press, 1944), 104-120.

[44] Thomas L. Connelly, *Army of the Heartland* (Baton Rouge: Louisiana State University Press, 1967), 30-31.

[45] Daniel, *Cannoneers in Gray*, 5-6.

[46] Clifford Dowdey, *Lee* (Boston: Little, Brown and Company, 1965), 142-143; Freeman, *R. E. Lee*, 467-468.

[47] McMurry, 85-86.

[48] O.R., vol. IV, 175-81.

[49] E. Merton Coulter, *The Civil War and Readjustment in Kentucky* (Gloucester: Peter Smith, 1966), 108-109.

[50] Oliver P. Temple, *East Tennessee and the Civil War* (Johnson City: The Overmountain Press, 1899), 366-387.

[51] McMurry, 65-66.

[52] McMurry, 58-59.

[53] McMurry, 59-60.

[54] O.R., vol. IV, 405.

[55] McMurry, 60-61, 63.

[56] O.R., vol. IV, 539.

[57] Robert C. Black, *The Railroads of the Confederacy* (Chapel Hill: The University of North Carolina Press, 1952), 6.

[58] John D. Milligan, *Gunboats Down the Mississippi* (Annapolis: United States Naval Institute, 1965), 49-50.

[59] McMurry, 25-26.

[60] Daniel, *Cannoneers in Gray*, 54, 56, 171.

[61] McMurry, 26-27.

[62] Grant, *Personal Memoirs*, 96.

[63] Michael C. C. Adams, *Our Masters the Rebels: A Speculation on Union Military Failure in the East 1861-1865* (Cambridge: Harvard University Press, 1978), vii-x, 47; McMurry, 44, 46-48.

[64] Jed Hotchkiss, *Confederate Military History Extended Edition, vol. IV, Virginia* (Wilmington: Broadfoot Publishing Company, 1987), 13.

[65] Adams, vii-x, 47; McMurry, 44, 46-48.

[66] Adams, 27-28.

[67] Grant, 453-454.

[68] McMurry, 49, 91.

[69] McMurry, 34, 43.

[70] O.R., vol. LI, pt. I, 369-70, 386-87.

CHAPTER 2

SENIOR LEADERSHIP OF THE ARMIES

Leaders at all levels of an army are responsible for the overall performance of their organizations. Leadership affects all aspects and branches of an army. The U.S. Army defines leadership as "the process of influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improve the organization."[1] History has shown there were distinct differences in the abilities of the Army of Northern Virginia and the Army of Tennessee to accomplish their missions. To help explain the different levels of success of these armies, and ultimately help answer the question of which field artillery corps was more competent, a top-down look at the leadership of each army is necessary. To begin with, an examination of what makes a good leader needs exploring.

There are many character traits of a good leader. The U.S. Army has identified some it feels are important for its leaders and call them the "Army Values," they include, loyalty, duty, respect, selfless service, honor, integrity, and personal courage.[2] There can be many more. The character traits of the senior leaders of the Army of Northern Virginia and the Army of Tennessee had an extremely important role in the performance of these two armies and the branches within them.

Thomas Connelly, perhaps the leading historian of the Army of Tennessee, gives numerous examples of the character faults of the senior leaders in this army. The Western Department, which contained the Army of Tennessee, began life under the leadership of Leonidas Polk. Although he was only in command for a few months, he managed to plant the seeds of conflict between commanders that plagued the Army of

Tennessee for the entire war. Connelly describes Polk as "stubborn, aloof, insubordinate, quarrelsome, and childish."[3] Next in line was Gideon Pillow, Polk's second in command. He and Polk feuded continually. Pillow is described as "snobbish, vain, ambitious, and easily offended."[4] Another well-regarded historian on the Army of Tennessee, Richard McMurry, sums up Connelly's thoughts on the subject, "he regards most of them as miserable human and military specimens."[5] According to McMurry readers of Connelly's books are "left with the clear impression that the high command of the Rebels' western army was a kaleidoscopic collection of military misfits, incompetents, poltroons, stumblebums, and buffoons, many of whom were too sick mentally or physically to be entrusted with soldiers' lives, too petulant to cooperate with each other or with their commander or with their government, and too petty to subordinate concern for their own place and status to their country's needs or to the welfare of their troops." "They devoted more time and almost as much energy to quarreling among themselves as they did to fighting the Yankees, and when they did fight the Federals, their personal bickering often rendered them incapable of cooperation with each other and ensured the defeat of their army."[6]

In stark contrast to the above, Douglas Freeman, the leading historian of the Army of Northern Virginia, states there were many "able officers" in the Army of Northern Virginia and calls them "that company of gallant gentlemen" who led that army.[7] Freeman does admit there were officers with both professional and personal shortcomings in the Army of Northern Virginia but they did not let these faults get in the way of performing their duties to the army and country in the same way they did in the Army of Tennessee.[8] The governor directed Virginia to "invite all efficient and worthy

Virginians and residents of Virginia in the Army and Navy of the United States to retire there from and enter the service of Virginia" when the state organized its forces in 1861.[9] Virginia was very careful about placing political leaders with no military experience to commands in its militia forces. The governor of Tennessee had a very different approach. Most of the general officer appointments in the Tennessee state militia were politically motivated as Governor Isham Harris sought to repay political debts. In any comparison between the two armies, the officers from Virginia clearly come out on top.[10]

Overall, the general officer leadership of each army hailed from the area the army fought in, for example, generals in the Army of Virginia were largely from the East and likewise generals in the Army of Tennessee were largely from the West. Virginia produced 79 general officers, almost twice the number of any other state, including Tennessee.[11] The Army of Northern Virginia also had a much more experienced senior leadership corps than did the Army of Tennessee. Early in the war, Confederate President Jefferson Davis had the cream of the crop of generals leading his forces in Virginia. They were widely recognized as the best officers in the prewar U.S. Army; among them were Joseph E. Johnston, Pierre Beauregard, and Robert E. Lee.[12] Both President Abraham Lincoln and senior Union general Winfield Scott wanted Robert E. Lee to command all Union forces prior to the war. Of the 79 generals from Virginia, 85 percent of them had previous military experience. Only 23 of the 40 generals, 57.5 percent, from Tennessee had similar experience. During 1862, all of the major generals in the Army of Northern Virginia had been educated at West Point and had served in the military. At the beginning of 1864, eight of eleven major generals in the Army of

Northern Virginia were from West Point, another from the Virginia Military Institute, and another was a former U.S. Army officer.[13]

By comparison, in the Army of Tennessee in 1862, three of their eight major generals had been prewar civilians and by the beginning of 1864, five of their eleven major generals had previous professional military education. The different levels of training and experience in the two army's high commands is demonstrated by the fact that it was not until 1864 when non-professional officers began to rise to senior leadership positions in the Army of Northern Virginia, such as Wade Hampton and John Gordon, and by then they had been officers for three years. This was not the case in the Army of Tennessee. As early as 1862 non-professionals such as Benjamin Cheatham and John Breckinridge were commanding divisions, and by 1863 they along with Thomas Hindman were commanding corps in the Army of Tennessee.[14] No matter how the numbers are sliced, it is clear the senior leadership in the Army of Northern Virginia was better trained and more experienced than its counterpart in the Army of Tennessee.

Of great importance to the success of each army was the relationship the commanders had with the senior civilian leader, President Jefferson Davis, and how Davis' leadership decisions affected each army. Davis' relationships with his commanding generals greatly influenced their ability to lead their armies and therefore affected the army's ability to function and perform on the battlefield. Davis was no stranger to military service and with his credentials of having been a hero of the Mexican War, a highly respected Secretary of War, a United States Senator, and a major general in the Mississippi militia one would surmise he would make a great commander in chief. Union General Ulysses S. Grant believed Davis "had an exalted opinion of his own

military genius."[15] Based on his relationship with the men in senior command positions in both armies, particularly the Army of Tennessee, he handled the armies in very different manners, and one can argue with very negative results for the Army of Tennessee. Jefferson Davis attended West Point with both Robert E. Lee and Joseph E. Johnston. He was not close with either man during school. During the war his relationship with Joseph Johnston, the first commander in Virginia and fourth commander of the Army of Tennessee, was quite stormy. He did however become close friends with Albert Sidney Johnston and Leonidas Polk, future thorn in the side of Johnston and Braxton Bragg, both future commanders of the Army of Tennessee. Prior to the start of the Civil War, Winfield Scott, the senior Union commander, considered Albert Sidney Johnston second only to Robert E. Lee in capabilities to command all Federal forces, and was in fact offered the Union command after Lee turned it down.[16] No one in the old army prior to the war achieved more than Albert Sidney Johnston.[17]

Inferior and incompetent subordinate commanders plagued Albert Sidney Johnston's appointment as the first commander of the Army of Tennessee by Davis.[18] President Jefferson Davis was a close friend of Leonidas Polk. Polk's military experience was that he had graduated from West Point thirty-four years before the war began; he had no other military experience. He was a bishop when called to service.[19] Officers of Polk's experience were commissioned the rank of major, perhaps lieutenant colonel. Polk received promotion on 25 June 1861 to major general in command of the strategically vital Mississippi River Valley. Polk's command only contained sections of the Tennessee River.[20] According to Steven Woodworth, one of Davis' biggest mistakes of the war was in not placing the Mississippi, Tennessee, and Cumberland Rivers under a

unified command.[21] This action would have dire consequences for the Army of Tennessee and forced Albert Sidney Johnston to work with Polk and another Davis general officer appointee mistake, Gideon Pillow, the first commander of the Provisional Amy of Tennessee. Davis bowed to political pressure when he appointed Pillow. Davis and others in Richmond had doubts in Pillow "from mistrust in his military abilities" and placed him under Polk.[22] This move highly irritated Pillow. Incessant bickering began between Pillow and Polk. Johnston had to work with these two individuals to defend Tennessee and the Mississippi River Valley. It did not go well. The first major downfall for the Army of Tennessee was Polk's mistake to violate Kentucky's neutrality, this move effectively removed Kentucky as a screen for nearly Tennessee's entire northern border.[23] Unfortunately, Albert Sidney Johnston did not have adequate troops to defend the area.[24]

Not only did Polk continually bicker with Pillow, he also constantly bickered with his commander Albert Sidney Johnston. On 28 October 1861, three months before the fall of Fort Henry, Johnston ordered Polk to send troops to strengthen Confederate defenses on the Tennessee River.[25] Polk dragged his heels and came up with numerous reasons why he could not comply with his commander's orders.[26] Johnston was adamant and again repeated the order on 5 November 1861. Johnston's adjutant, W. W. Mackall, told Polk Johnston noted his objections but his orders "will be executed."[27] The next day, 6 November 1861, Polk circumvented the chain of command and wrote directly to President Davis. Polk tendered his resignation after stating that the work on the fort had been "substantially" completed, arguing that his services were no longer needed.[28] Unfortunately, for the Confederacy on 12 November 1861 Davis responded that he could

not accept Polk's resignation. According to Davis, the situation was too perilous. Ironically, Davis also told Polk that due to the size of Johnston's command "its successful defense must mainly depend upon the efficiency of the division commanders."[29] Polk apparently did not read this sentence because he was certainly not efficient or loyal in his support for his commander. He refused to provide satisfactory explanations why the fort's defenses were not improved. .[30] So it was at Fort Henry where the next break in the western defenses took place, a break the Army of Tennessee, regardless of who commanded it, could probably never be overcome.

Not all the blame for the very costly strategic failure of the Army of Tennessee at Fort Henry, and its subsequent effects on the army, belongs on the shoulders of Leonidas Polk. Jefferson Davis and Albert Sidney Johnston also share fault. Polk suggested to Johnston that Lloyd Tilghman command the defenses of both the Tennessee and Cumberland Rivers due to his knowledge of the area on 31 October 1861.[31] This was done and he immediately recognized the need for, and requested, additional forces to hold the defenses on the rivers.[32] Tilghman saw little response from his superiors. In a 16 December 1861 correspondence to Johnston thru his adjutant COL Mackall, Tilghman stated, "I am not secure at either Henry or Donelson. Have 1,500 unarmed men. Have asked for two companies for heavy artillery; have no answer. Think movements at Cairo look to Cumberland and Tennessee certain."[33] After hearing nothing from Johnston, Tilghman wrote directly to President Davis on 28 December 1861. He stated the position is exposed and since he could not get weapons in the west he was attempting to get them from Richmond. Tilghman also prophetically stated that "I feel deeply solicitous about our position on the Tennessee and Cumberland, and believe that no one point in the

Southern Confederacy needs more the aid of the Government than these points."[34] Tilghman was not alone in his admonition of the Confederate government in this effort. On 22 January 1861 General Johnston wrote General Samuel Cooper the Adjutant and Inspector General stating the importance of the rivers and the necessity to hold them. Johnston stated, "If force cannot be spared from other Army corps the country must now be roused to make the greatest effort that they will be called upon to make during the contest. No matter what the sacrifice may be, it must be made, and without loss of time. Our people do not comprehend the magnitude of the danger that threatens."[35] Little was done and as a result of the failure of subordinate commanders to obey orders, commanders appointed and kept by President Davis, and poor leadership of both Johnston and Davis to ensure this vitally important piece of terrain was secure, Fort Henry fell to Union forces on 6 February 1862 and gave Union forces control of the Tennessee River.[36]

Another domino fell for the Army of Tennessee around this same time on the eastern border of the state of Tennessee as a result of two other Davis appointees, Felix Zollicoffer and George Crittenden, at the Battle of Mill Springs, Kentucky, on 19 January 1862. Davis appointed Zollicoffer, though he had no military education, a brigadier general on 14 August 1861.[37] The Battle of Mill Springs resulted in eastern Tennessee opening to the Union Army and the whole defensive line in Kentucky in peril.[38]

The next man in the lengthening line of inept Davis appointees that would have disastrous effects in the west for the Army of Tennessee was John B. Floyd. Floyd, was a Virginia politician who had previously been the Secretary of War under President Buchanan and also governor of Virginia. When war broke out Davis felt obligated to

appoint him a brigadier general and he was given command of a brigade under Robert E. Lee in the Army of Northern Virginia. After his disastrous performance in Lee's West Virginia campaign Floyd was sent to the west. Albert Sidney Johnson, desperately needed troops to reinforce Fort Donelson. Since he could not get Polk or Pillow to do it, Johnston sent Floyd. Floyd, by reason of seniority only, commanded Fort Donelson. Woodworth calls Floyd, "arguably the worst general the Confederacy would ever have."[39] Union General Ulysses S. Grant said of Floyd, "He was no soldier, and did not possess the elements of one."[40] Floyd's second-in-command was arguably the second-worst general the Confederacy ever had, Gideon Pillow. Grant, who had fought with Pillow in Mexico, said he "was conceited, and prided himself much on his services in the Mexican War."[41] Grant did not have much respect for Pillow's abilities as a leader; he stated, "I could march up to within gunshot of any entrenchments he was given to hold."[42] In correspondence to the Confederate Secretary of War on 8 February 1862 Johnston stated should Fort Donelson fall the invasion route to Nashville would be open and cut his lines of communication.[43]

Fort Donelson was surrounded on 13 February 1862 and Confederates managed to drive off attacking Union gunboats on the 14 February. Floyd and Pillow, finally realizing they were surrounded, attacked the next morning and opened an escape route through the Federal lines. [44] They then inexplicably ordered their men back to the fort because the men were tired and needed to retrieve their blankets and knapsacks.[45] The following day, 16 February 1862, the trap snapped shut. Floyd, without authority, turned over command to the third in command, Simon Buckner. Floyd then pulled rank and commandeered the only available steamship for himself and his four Virginia regiments

and abandoned the fort. Pillow and his chief of staff, who could not find a steamship, commandeered an old abandoned scow hardly big enough for them both, abandoned their men and then paddled to the other side of the river and safety.[46] Johnston succinctly told the Secretary of War on 17 February 1862, "Fort Donelson was surrendered at 4:10 p.m. yesterday, after most gallant defense. Floyd saved about 1,000 men. He and Pillow are here. Buckner surrendered after they left."[47] Pillow and Floyd's escapades were not lost to the North. Union general William T. Sherman states in his memoirs, "Pillow and ex-Secretary of War Floyd having personally escaped across the river at night, occasioning a good deal of fun and criticism at their expense.[48]

President Davis was equally not impressed. He stated, "The reports of Brigadier Generals Floyd and Pillow of the defense and fall of Fort Donelson are unsatisfactory" and ordered that they be relieved of command.[49] Davis even went so far as to unofficially admonish his friend Albert Sidney Johnston in a 12 March 1862 correspondence. Davis stated, "I expected you to make to have made a full report of events precedent and consequent to the fall of Fort Donelson."[50] Davis went on to say that he had made every defense of Johnston's actions that "friendship prompted and many years' acquaintance justified."[51] Davis added however, "but I needed facts to rebut the wholesale assertions made against you to cover others and to condemn my administration."[52] In the public's eyes, Davis added, "You have been held responsible for the fall of Donelson and the capture of Nashville. Tis charged that no effort was made to save the stores at Nashville and that the panic of the people was caused by the army."[53] Davis stated these accusations "have been painful to me and injurious to us

both; but, worse than this, they have undermined public confidence and damaged our cause."[54]

Davis had done fairly well in appointing Albert Sidney Johnston to command the western theater and the Army of Tennessee but he greatly reduced his effectiveness by tying him down with incompetent subordinates, most significantly Generals Polk, Pillow, and Floyd. Davis had difficulty seeing weakness in his friends or someone he respected. This was an admirable trait to have in a friend but no so admirable when you are the commander in chief of an army and that friend is an incompetent general officer.[55] Davis does not deserve all the blame for the initial failures in the west; Albert Sidney Johnston is also not without fault. A major leadership mistake committed by Johnston was in not finding or demanding a solution to inferior and incompetent subordinates such as Polk, Pillow, and Floyd. Union General Ulysses S. Grant said, "I do not question the personal courage of General Johnston, or his ability," he added however, "as a general he was over-estimated."[56] Johnston also failed to control his subordinates and often gave them too much responsibility as he did with P.G.T Beauregard, his second in command, in the Army of Tennessee's next move to defeat at the Battle of Shiloh on 6-7 April 1862.[57] Johnston characteristically placing too much confidence in his subordinate Beauregard allowed him to draw up the plans of attack; they proved to be inadequate. Johnston also allowed Beauregard to remain in the rear while Johnston led the attack. When the attack bogged down at the Hornets' Nest Johnston rode over to inspect the situation and was subsequently mortally wounded and died. Pierre G.T. Beauregard now took command of the Army of Tennessee and eventually broke off the attack and the final opportunity to break Union General U.S. Grant's lines was lost.[58] In Beauregard's defense there are

varying opinions as to his performance once he took command and to whom actually called off the attack, Beauregard or Braxton Bragg, though it appears most of the fingers point toward Beauregard.[59]

Beauregard was transferred from the Army of Northern Virginia to the Army of Tennessee following sustained bickering in Lee's army. Beauregard and President Davis also had a rocky past. Mary Chesnut, a prominent citizen of Richmond during the war, even speaks of the poor relationship between the two and the vanity of Beauregard in her diary.[60] Beauregard publicly blamed Davis for not pressing the assault following the Union defeat at Manassas. Beauregard, according to his version of events, had a plan that would have led to the capture of Washington and Baltimore had Davis not vetoed it. The facts were quite different. According to E.P. Alexander, Davis wanted both Joseph Johnston, then in command of Virginia forces, and Beauregard to pursue the fleeing Federals. Both gave orders to make advances but neither of them followed them up to ensure they were carried out. In fact Davis, Johnston, and Beauregard spent the remainder of the available daylight riding around the battlefield and accomplished nothing. Stonewall Jackson stated that with 5,000 fresh men he could be in Washington, D.C. the next morning.[61] Joseph Johnston believed "the Confederate army was more disorganized by victory than that of the United States by defeat" and as such no attempt on Washington could have been made.[62] Further evidence of Beauregard's leadership abilities was shown when on 14 June 1862 he decided, without informing President Davis, that he needed some rest and recuperation at a spa in Mobile and turned over his command, temporarily he thought, to Braxton Bragg. Beauregard stated, "I will remain about one week or ten days, or long enough to restore my shattered health."[63] Davis was

not impressed and permanently removed him and placed Braxton Bragg in command of the Army of Tennessee on 20 June 1862.[64]

Bragg correctly identified leadership issues within his command and on 29 June 1862 wrote Richmond and attempted to remove some of the subordinates he deemed as "dead weight."[65] He realized he was in command of an army led by many inept generals and wanted to replace them with younger more promising officers. Bragg stated, "I acknowledge the difficulties in the way and the delicacy of the matter, but the safety of our cause may depend on it."[66] President Davis, citing legal reasons why he could not comply, but most likely realizing his old crony Leonidas Polk, among others he had appointed, was among the "dead weight", did not allow Bragg to replace them. For example on 26 July 1862 Bragg removed General John H. Forney from command of the District of the Gulf. The very same day Davis responded that the experience of Forney "renders the propriety of withdrawing him very doubtful, please reconsider your purpose in that regard."[67] There may have been other reasons, besides legal issues, that motivated Davis' actions. Union General William T. Sherman, who served under Bragg early in 1850, states, "I knew that Bragg hated Davis bitterly," as a result of actions taken by Davis while Secretary of War in 1855.[68] Bragg actually resigned from the army for a while as a result of being sent "to chase Indians with six-pounders" by Davis.[69]

Davis did not take the same approach with his senior commander in the east, Robert E. Lee. If Lee had a problem with a subordinate commander Davis did not interfere with Lee's request to remove him. For example, following poor performance in the West Virginia campaign John Floyd was sent west to the Army of Tennessee were he could do further damage. Also, following the Seven Days campaign Lee was anxious to

rid himself of senior commanders he felt did not perform as he saw fit and had allowed McClellan's Union force to remain intact and ultimately escape. Lee got rid of G.W. Smith, Benjamin Huger, John Magruder, William Whiting and even Davis' friend Theophilus Holmes. Magruder and Holmes were also sent west, as Beauregard had been.[70] Davis did not allow his commanders in the west this same amount of latitude, especially concerning movement of his friends. These actions are especially ironic considering how Davis would not allow Braxton Bragg to remove insubordinate commanders and morale and discipline sapping officers from the Army of Tennessee. There are several possible explanations for Davis' actions towards Bragg. First, Davis and Bragg did not get along. Second, many of these appointees had political or personal connections to Davis and Davis did not want, or like to be, considered wrong by having appointed them. Third, Lee was a much more successful commander than was Bragg. Davis may have felt Bragg did not know what he was talking about and felt his own military abilities and judgment were superior to that of Bragg's.

Davis' good friend Leonidas Polk continued to disobey orders and potentially cost the Army of Tennessee an important victory at the Battle of Perryville, Kentucky, on 8 October 1862. Davis took no action. Following the Perryville campaign there was a growing movement among politicians and newspaper editors to remove Bragg from command. More significant and disturbing however was the campaign to undermine Bragg's command by his own generals, led by Leonidas Polk. On 5 March 1863 Congressman James Pugh of Alabama wrote Bragg from Richmond stating, "This city has been the focal point of all the malignity against you, false representations have been made by Polk and his friends to members of Congress, and a dissolute press has teemed

with communications originating with these croakers and malcontents."[71] Generals Kirby Smith and Harry Heth believed that General Bragg had lost his mind. The situation became so tenuous one of Bragg's brigade commanders, Brigadier General John R. Liddell, suggested, "If he (Bragg) had caused even one or two of us to be shot I firmly believe the balance would have done better."[72]

President Davis attempted to correct what he saw as the problems in the west by placing the entire area under a unified commander, Joseph E. Johnston. His decision to unify the western command was a good one; his choice of commander was not.[73] Davis and Johnston did not like one another at all. According to Craig Symonds the poor working relationship and ill feelings between Jefferson Davis and Joseph E. Johnston was a primary factor in the Confederate loss of the American Civil War. Their antagonism toward one another bloomed at the beginning of the war following Johnston being placed fourth in seniority of full generals in the Confederate Army by Davis. They also differed on theories of strategy for conduct of the war. Davis wanted all territory defended; Johnston wanted to mass a large field army and then fight a decisive battle on his own terms and location, the loss of territory was not a consideration.[74]

Davis' most glaring leadership failure was in his continued refusal to support Bragg. Davis continued to refuse to remove incompetent officers from his army and most problematic for Bragg failed to enforce that his subordinates, primarily Polk and Hardee, follow his orders. Davis instead decided to remove Bragg from command of the Army of Tennessee. This move was blocked by Johnston, partly out of respect for Bragg and partly out of resentment for Davis. The end result was that no action was taken to correct the leadership issues existing in the Army of Tennessee after the Battle of Stones

River, near Murfreesboro, Tennessee, on 31 December 1862-2 January 1863. Johnston further complicated matters by insisting as overall commander there was nothing he could do to get the senior leaders in the west to cooperate and that his position as overall commander was useless.[75] The criticism of Johnston is warranted, as overall commander he should have insisted his subordinates worked together to accomplish the mission.

Following the Battle of Chickamauga, in Georgia, southeast of Chattanooga, Tennessee, on 18-20 September 1863, Bragg had finally had enough of Polk's insubordination and refusal to obey orders and removed him from command. The senior leadership of the Army of Tennessee was falling apart. Polk's removal did not send the message Bragg had intended; it only strengthened the resolve of the malcontents. The anti-Bragg corps and division commanders asking that Bragg be relieved of command drew up a petition. Polk wrote directly to President Davis on 4 October 1863 asking that he remove Bragg from command of the Army of Tennessee.[76] Davis still could not understand the reason for the insubordination and lack of discipline in this army. To make matters worse, Davis told Bragg he believed the orders removing Polk should be countermanded.[77] Bragg was adamant, "the case is flagrant and but a repetition of the past. Our cause is at stake. Without vigorous action and prompt obedience (it) cannot be saved."[78] Bragg added, "I suffer self-reproach for not having acted earlier."[79] Davis felt leniency was the better course of action toward Polk and that it was unfair to punish Polk and do nothing to D.H. Hill whom he believed was more to blame for the failure to follow orders at Chickamauga than Polk. On this matter Bragg agreed and removed Hill from command as well.[80] However, the removal of these two tumors did not stop the cancer of discontent from spreading in the Army of Tennessee.

Davis' actions seriously undermined the authority of Bragg and his ability to command the Army of Tennessee. Following the army's defeat in a series of disastrous battles around Chattanooga on 23-25 November 1863, Davis finally agreed to accept Braxton Bragg's request to step down from command of the Army of Tennessee.[81] Bragg had two major flaws as a commander. He had an inability to adjust rapidly when things did not go according to plan. Most importantly he had an inability to inspire his men to respect and obey him.[82] William T. Sherman said Bragg was "naturally exacting and severe, and not possessing the qualities to attract the love of his officers and men."[83] Ulysses S. Grant believes Bragg also made serious errors at Chattanooga. First, he sent away his best corps commander, Longstreet, and 20,000 men to capture Knoxville, Tennessee. Secondly, he sent away another division of troops prior to the battle. Finally, he placed much of his force in front of his nearly impregnable position. Grant says Bragg was "a remarkably intelligent and well-informed man" with "the highest moral character."[84] Bragg also possessed "an irascible temper."[85] Although Bragg's subordinates should have obeyed and supported him regardless of the reasons, an incident early in his career indicates the difficulty there may have been in getting along with him. Bragg was a company commander acting as the post quartermaster at the same time. As company commander he requested something from the post quartermaster, himself. As post quartermaster he denied the request, company commander and quartermaster went back and forth at least one more time. Bragg then forwarded the documents to his commanding officer to break the deadlock. The commander exclaimed, "My God, Mr. Bragg, you have quarreled with every officer in the army, and now you are quarrelling with yourself!"[86]

Davis wanted Robert E. Lee to take command of the Army of Tennessee. Lee was prepared to do so but had no desire to leave Virginia and ultimately talked Davis out of this and with supporters from congress threw their support behind Joseph E. Johnston. The command climate in the Army of Tennessee did not improve under Johnston.[87] Johnston, however, does appear to have been well liked by his men. William T. Poague, an artillerymen under the command of General "Stonewall" Jackson in the Army of Northern Virginia states as he gives his first impression of Robert E. Lee, "There was something about him (Lee) that impressed me as no other officer did except Joseph E. Johnston."[88] Johnston continued to practice his strategic vision that he had begun early in the war in Virginia of giving up territory for the opportunity to fight the one decisive battle that never seemed to come to fruition. The bickering and backstabbing in the army did not stop either. Following the Battle of Missionary Ridge, near Chattanooga, Tennessee, on 15 November 1863 for example, while Bragg was still in command, Leonidas Polk claimed ownership of two brigades Johnston had sent Bragg before the battle. Johnston frustrated asked President Davis to "please decide to which army they belong."[89] Johnston further complicated matters by having poor communication with Davis. Poor communication was Davis and Johnston's single biggest fault. The blame for this mostly lies on Johnston since he was the subordinate and it was his duty to keep his commander in chief informed. This was also very much in contrast to Robert E. Lee who painstakingly kept Davis appraised of his situation. Although distance and Federal attacks on the western Confederates lines of communication may have played some factor in the poor communication, the author believes the poor relationship between Davis and his western commanders was more to blame.

Prior to the Atlanta campaign Johnston had lost all credibility with the Confederate government.[90] Many in the government believed Johnston planned to give up Atlanta without a fight. President Davis sent Braxton Bragg to Johnston to inquire what his plans were. Bragg told Davis, "I cannot learn that he has any more plan in the future than he has had in the past."[91] Davis then inquired directly to Johnston himself. Johnston's response was considered evasive and he was removed from command and replaced by John Bell Hood. E.P. Alexander states of Johnston's leadership abilities, "Johnston had never fought but one aggressive battle, the Battle of Seven Pines, which was phenomenally mismanaged."[92] In other writing's Alexander states, "The enemy considered his (Johnston's) marches and retreats as superlatively well planned and conducted.[93] Johnston defended his decisions and stated he intended to defend Atlanta. Years after the war was over he stated, "I assert that had one of the other lieutenant-generals of the army (William J. Hardee or Alexander P. Stewart) succeeded me, Atlanta would have been held by the Army of Tennessee."[94] There were several reasons for the choice of Hood over Hardee or Stewart. President Davis relied heavily on the opinions of General Bragg in making the decision. Hood had been politicking for the position for quite some time with Bragg, to the extent of providing Bragg one-sided, bordering on un-truthful, reports on the current campaign. Bragg had experience with Hardee and had doubts about his abilities. Bragg felt Hardee would continue the current campaign tactics of Johnston, retreat until an opportunity to attack, which never seemed to materialize, presented itself. Robert E. Lee recommended Hardee. Lee had not served with Hardee for quite a number of years and was not in Atlanta, based on this, the aforementioned

reasons and Johnston's continued refusal to fight, Davis chose Hood as the next commander of the Army of Tennessee.[95]

John Bell Hood rose from lieutenant to brigadier general in one year. Prior to assuming command of the Army of Tennessee Hood had been seriously wounded twice. During his convalescence in Richmond, following his second wound, Hood developed a close friendship with President Davis. Davis helped him get promoted to lieutenant general in February 1864 and was soon given command of a corps in the Army of Tennessee. Almost immediately Hood began writing Richmond to protest the performance of then commander of the army Joseph Johnston. Hood expressed optimism; Johnston expressed pessimism. Finally after numerous retreats Davis replaced Johnston with Hood in July 1864 as the Atlanta campaign began. At the age of thirty-three John Bell Hood became the youngest full general in the Confederacy. His promotion caused further discontent in the Army of Tennessee. Hood had the qualities for, and had made a very good regiment, brigade, and division commander. He was however above his element at the corps and army level of command.[96] The working relationship of the senior commanders in the Army of Tennessee did not improve under Hood either. Hood's attack on Sherman on both 20 and 22 July 1864 failed due to the failure of one of his corps commanders, General Hardee, to follow orders. Another victory was potentially lost with the failure of another corps commander, General Cheatham, to follow orders.[97] Hood knew nothing else to do except attack and flung his army wildly at the Federals. A sign of things to come could have been seen when on 20 April 1864 as corps commander he ordered all of his regiments to plainly mark their regimental flags with their numbers and states so they could clearly identify any lost in

battle.[98] Following battles in November and December 1864 the Army of Tennessee virtually ceased to exist and the war in the west was tactically over.[99] Though one can argue it had been over for quite some time before that.

Historian Steven Woodworth states the Confederacy lost the American Civil War in the west.[100] So what were the major flaws in Jefferson Davis' leadership of the war in the west that ultimately led the Army of Tennessee to failure? Davis showed too great a loyalty to his friends and an inability to see when they negatively impacted the outcome of the war or the performance of the army, his handling of Leonidas Polk being the most serious offense. He also had an unwillingness to admit when he had made a mistake. Davis also had frequent health problems that also negatively affected his ability to lead. He was also too much of a micromanager in the west; he did not give his senior army commanders authority to manage their forces as they saw fit, especially in comparison to the freedom he gave Lee in the east. Another leadership flaw Davis possessed was he failed to ensure his generals worked together. He did not understand how they could possibly disagree on major campaign operations and he believed they would always do what was best for the Confederacy regardless of all other considerations. However, clearly Davis' most serious leadership flaw was his hesitancy and indecisiveness. He hesitated to force his generals to cooperate and to adhere to his strategic plans. He hesitated to remove generals who were incompetent. He hesitated to force subordinate generals to obey their superiors and hesitated to concentrate his forces. As a result of these leadership weaknesses Davis failed to make the necessary decisions quickly and correctly and this ultimately led to the failure of the Army of Tennessee.[101]

In comparison to the generally poor relationship between the commanders of the Army of Tennessee and President Davis, General Robert E. Lee, commander of the Army of Northern Virginia, and Davis had a good working relationship. The positive relationship between the commander in chief and the Army of Northern Virginia was not the case when Joseph Johnston commanded the Virginia forces. In fact the situation in the leadership of the Virginia forces was initially very similar to the one out west in the Army of Tennessee.

By early November 1861 Davis' relationship with the three top commanders in Virginia, Joseph Johnston, Pierre Beauregard, and Gustavus Smith had deteriorated to cold formality bordering on hostility. Davis, however, did have one high-ranking ally in the eastern theater in late November 1861, Robert E. Lee, who had just returned from his mission in West Virginia. Although Lee received some criticism as a result of the affairs in West Virginia, Davis remained confident in Lee's abilities. Davis stated, "My estimate of General Lee, my confidence in his ability, zeal, and fidelity, rested on a foundation not to be shaken by such criticism."[102]

A prominent example of the bickering, back stabbing, and circumvention of the chain of command that went on at this time in the Army of Northern Virginia is shown in an incident between Thomas J. "Stonewall" Jackson and William Loring. The incident began when Loring, one of Jackson's subordinate commanders, had issues with were General Jackson garrisoned his men. Jackson requested Loring's forces for use in the Shenandoah Valley, since Lee's expedition in West Virginia was now sitting idle. During the harsh winter campaign in the West Virginia Mountains, Federal forces in the small town of Romney withdrew; Jackson ordered Loring's men to garrison in the town.

Jackson's forces occupied Winchester, Virginia in the Shenandoah Valley. Loring and his men began to feel as if they were being treated poorly and had to deal with more winter hardships than their brethren in Winchester. On 26 January 1862 Loring suggested his forces would not re-enlist if something were not done and asked Jackson to forward the request to relieve them. Jackson replied, "Respectfully forwarded, but disapproved." In fact all had to deal with the same weather but due in large part to General Loring's incompetence and inability to control his nearly demoralized men his forces were suffering more than any other in Jackson's command. Loring, however, spurred his quibbling officers on, and called Jackson's orders "the damnedest outrage ever perpetuated in the annals of history."[103] Loring then signed and forwarded a petition from his officers to President Davis asking to be moved to Winchester, and sent another officer to speak directly with Davis. Davis interceded and ordered Jackson to move Loring to Winchester. Jackson complied immediately and then sent the following to Davis, "with such interference in my command I cannot expect to be of much service in the field" and then requested to be reassigned to the Virginia Military Institute or be allowed to resign.[104] Joseph E. Johnston interceded and held Jackson's letter long enough for Virginia governor John Letcher to get involved and talk Jackson out of the request. Steven Woodworth calls this action by Johnston, "Joseph E. Johnston's greatest contribution to the Confederate war effort."[105] President Davis would most likely have accepted Jackson's resignation. In fact Davis once again displayed his uncanny ability to assess the capabilities of his commanders, as he also did very well in the west, by stating that Jackson was "utterly incompetent."[106] Jackson bought court martial charges against Loring for "neglect of duty and conduct subversive of good order and military

discipline."[107] Davis promptly dismissed the charges, promoted Loring to major general, and transferred him to the west and the Army of Tennessee where he played a role in Union general Ulysses S. Grant's capture of Vicksburg by refusing to obey an order from another commanding officer.[108] This is the same type of detrimental interference that Davis displayed repeatedly in the Army of Tennessee and did not display with Robert E. Lee and the Army of Northern Virginia.

This episode demonstrates that Davis' poor leadership decisions were not limited to the west, particularly before Robert E. Lee assumed command of the Army of Northern Virginia. The incident shows that Davis was too focused on direct tactical decisions and micro-managing his commanders and not on operational objectives. Davis demonstrated a complete disregard for the chain of command when it suited him. His dismissal of the charges on Loring, and his subsequent promotion indicate his approval of Loring's actions and could only have undermined discipline in the entire army. However, matters were soon to change when on 31 May 31 1862 Joseph Johnston was seriously wounded in fighting around Richmond. Seeing that he had no other options, President Jefferson Davis placed Robert E. Lee in command of the Army of Northern Virginia.[109] This action opened a new era in the relationships of the general officers within the Army of Northern Virginia and the army's success as a whole. E.P. Alexander stated it clearly, "the chances of a successful campaign against McClellan had increased greatly when Johnston fell, wounded."[110] He also believed the good working relationship built between Davis and Lee while Lee was the Military Advisor to the President would be beneficial to the army.[111]

The Army of Northern Virginia, unlike its counterpart army in the west, was very successful in the early and mid years of the war and fought a stubborn defense until the end. Robert E. Lee, very much unlike Joseph Johnston, immediately began sowing seeds for a good relationship with President Davis. Lee, also unlike Johnston, was in constant communication with Davis. Lee sent numerous letters and telegrams to the Confederate government, and Davis in particular, discussing logistics, plans, and organization. His correspondence with Davis was always respectful. Lee expressed great concern for Davis' safety when he wanted to visit Lee in Fredericktown, Maryland.[112] What little correspondence there was from the western commanders to the government and President Davis rarely displayed the same respect. Had Johnston been more communicative and showed his commander in chief more respect perhaps the situation between the two would not have been so tense and the outcome for the Army of Tennessee more advantageous.

In dealing with Lee, President Davis seemed much more open to his operational plans when compared to those of his western commanders, even though Lee's plans often went against Davis' views of fighting the war. With Lee, Davis was willing to take risks he would not consider with any other commander. The two men worked very well together. Following the Battle of Antietam, Maryland, on 17 September 1862 Davis and Lee coordinated to improve the Army of Northern Virginia's command system, discipline, and organization. To correct the discipline problem in the army Lee wanted to remove incompetent regimental officers. Davis supported him once again by going to Congress and asking for legislation that allowed Lee to make the changes he desired. This was in stark contrast to his lack of support to Braxton Bragg in the Army of

Tennessee who was in a very similar situation in his army. Repeatedly Davis supported Lee with requests to remove incompetent officers when he would not do the same out west. Unfortunately for the Army of Tennessee many of these incompetent officers were headed its way. Davis also supported Lee by getting Congressional approval to establish corps and the rank of lieutenant general to command them. However Lee did not get all he wanted all the time. In a crucial mistake Davis did not support Lee on his proposal in increase the size and power of his staff. Davis vetoed this bill. It is believed Davis felt this increased and powerful staff would somehow infringe on his powers as president. By doing so Davis limited the ability of the Army of Northern Virginia to conduct operations and once again demonstrates Davis' ability to micromanage even Robert E. Lee. Poor staff work was one of the major causes for the failure of the Seven Days Campaign to achieve Lee's tactical objectives. The failure to expand the army staff's handcuffed not only Lee but other commanders as well. President Davis did all he could to see that the Army of Northern Virginia got what it needed to function. Davis also asked Lee who his new corps commanders should be, implying that if the current senior leaders were incompetent, Jackson and Longstreet, they could be replaced.[113] Davis never gave Bragg, who needed it more than anyone, this same opportunity or flexibility.

The strength of Davis' support for Lee can be seen by the fact that even when the decision made was unpopular to Davis' state of Mississippi or his friends he was willing to support Lee, something he would not do for the commanders of the Army of Tennessee. Following the Battle of Chancellorsville, Virginia, on 2-4 May 1863 Davis once again demonstrated his support for Lee and the senior leadership changes he proposed. Davis' support for Lee did not falter even following Gettysburg. He allowed

Lee complete freedom to conduct his operations as he saw fit. This response to Robert E. Lee was a marked contrast to his response to Joseph E. Johnston, then commanding the Army of Tennessee. Davis continued to attempt to fulfill every request made by Lee. Following Gettysburg Lee requested to be replaced; Davis quickly rejected Lee's request. Davis was solidly behind Lee for the remainder of the war.[114]

As the fortunes of the war grew bleaker for the Confederacy Davis grew even more reliant on Lee. Woodworth calls Davis' actions during the campaign from Cold Harbor to Petersburg in 1864 "the brightest chapter in Davis' function as commander in chief." During this time period Woodworth states, "the president had worked with Lee more effectively and harmoniously than with any other general or at any other time during the war."[115] Davis had executed one of the "most brilliant command decisions of military history." Woodworth, in summarizing the relationship and effectiveness of President Jefferson Davis and General Robert E. Lee puts it very clearly; "Davis and Lee became one of the most potent high-command collaborations of this or any other war."[116] Had Jefferson Davis given his commanders of the Army of Tennessee the same cooperation and support he gave Robert E. Lee the performance of the Army of Tennessee would have certainly improved and the outcome of the war may have been quite different.

During the American Civil War the leadership abilities of an army's overall commander was of the utmost importance. Historian G. F. R. Henderson states, "The history of famous armies is the history of great generals, for no army has ever achieved great things unless it has been well commanded."[117] The commander's abilities were especially important due to the Confederate command system that required the

commander to accomplish a mission without specific guidance. McMurry states that ultimately the major factor in the difference of these two Rebel armies, which has a profound impact on all organizations and branches within the army, "was to be found in the personality, character, intelligence, dedication, and, above all, in the integrity and moral courage of their commanding generals."[118] The Army of Tennessee was commanded by five different men for various lengths of time, Albert Sidney Johnston, Pierre G.T. Beauregard, Braxton Bragg, Joseph E. Johnston, and finally John Bell Hood. Two men, Joseph E. Johnston and Robert E. Lee, commanded the Army of Northern Virginia. President Davis replaced Johnston with Lee after Johnston was wounded in June 1862. There were perhaps other reasons Davis wanted to replace Johnston for, as would be seen again out west and led to his dismissal there as well, but at least his being wounded gave Davis the excuse he needed. Lee retained command for the duration of the war. In describing the commanders of the western army's historian G. F. R. Henderson states, "the western armies of the Confederacy were led…by inferior men." In discussing Lee he states "it was not the Army of Northern Virginia that saved Richmond but Lee."[119] McMurry adds, "Nor was it the Army of Tennessee that lost the West but that army's commanders."[120]

A comparison of the leadership abilities of the senior commander of the Army of Tennessee and the Army of Northern Virginia can be seen through the eyes of Colonel E.P. Alexander. Alexander, who served in both armies, was General James Longstreet's corps chief of artillery in the Army of Northern Virginia when that force was transferred to the Army of Tennessee prior to the Battle of Chickamauga. Colonel Alexander was not impressed with what he saw in comparison to what he left in Virginia. He believed

the Army of Tennessee was "badly commanded" by Braxton Bragg. Alexander summed up his feelings for the leadership of the two armies as follows. "Unlike the armies in Va., which have never considered themselves defeated, our Western army had never gained a decided victory. Naturally, therefore, Lee enjoyed both the affection and confidence of his men, while there was an absence of much sentiment toward Bragg."[121] Union forces themselves acknowledged the difference in the two armies. Commenting on the difference in fortunes of the western and eastern Union forces, western forces under Grant being much more successful, Grant's staff would often hear from eastern officers, "Well, Grant has not meet Bobby Lee yet."[122] Confederates were aware of the difference in these two forces as well and wanted Grant to experience it firsthand. Colonel E. P. Alexander stated, "We wanted to see Grant introduced to General Lee and the Army of Northern Virginia, and to let him have a smell of our powder."[123] At the close of the war on 10 April 1865 Union General George Meade called upon General Lee for a conference. Lee and Meade had known each other before the war. Lee pleasantly said to him, "Meade, years are telling on you; your hair is getting quite gray." Meade promptly replied, "Ah, General Lee, it is not the work of years; you are responsible for my gray hairs."[124]

Under Lee's leadership his army achieved and maintained a high level of command stability, much unlike the Army of Tennessee. Lee spent many hours working on the administration of his army and constantly adjusting its organization in order to make it more responsive. In great contrast to the leaders of the Army of Tennessee, Robert E. Lee did not argue and bicker with his subordinate commanders. Also in contrast to the leaders in the west, Lee worked extremely hard to resolve and mitigate any

disputes between his subordinate commanders in order to limit any detrimental effects they may have on the army. The Army of Northern Virginia was a more effective fighting force than was the Army of Tennessee because of more sound administration and better cooperation with the Confederate government. However, McMurry states this does not explain the full reason for the difference in the two armies, "the explanation for most of the eastern army's success is to be found in Lee himself, mostly in his intelligence and character."[125] E.P. Alexander said of Lee, "Probably no man ever commanded an army and, at the same time, so entirely commanded himself, as Lee." He added, "In Lee we had a leader of phenomenal ability."[126] William T. Poague, a cannoneer under Stonewall Jackson states of Lee, the army "took great comfort in the thought of having such a leader to follow." Near the end of the war in April 1865 when all was falling around him Lee's leadership was at its greatest. Poague states, "Under such unparalleled circumstances, directing the evacuation and of the night march, dignified, serene, self-possessed, he appeared greater than ever before. I had seen him often in battle, had had interviews with him when he was under tremendous stress, but nothing before had so impressed me with his towering greatness."[127] "Stonewall" Jackson said of General Lee, "Lee is a phenomenon. He is the only man whom I would follow blindfold."[128] "A Rebel soldier that fought in both Confederate armies explained the difference between the Army of Northern Virginia and the Army of Tennessee clearly, "one of them has Gen'l Lee and the other has'nt."[129] It is doubtful that President Jefferson Davis ever read Sun Tzu's *The Art of War* but his actions toward his commanders and their individual leadership abilities seem to validate Tzu's twenty-ninth principle in his offensive strategy chapter, "he whose generals are able and not interfered with by the sovereign will be victorious."[130]

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[3] Thomas L. Connelly, *Army of the Heartland: The Army of Tennessee, 1861-1862* (Baton Rouge: Louisiana State University Press, 1967), 47.

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[5] Richard M. McMurry, *Two Great Rebel Armies* (Chapel Hill: The University of North Carolina Press, 1989), 114.

[6] McMurry, 115.

[7] Douglas S. Freeman, *Lee's Lieutenants: A Study in Command, vol. 1* (New York: Charles Scribner's Sons, 1942), xv.

[8] Freeman, xxii-xxvi.

[9] McMurry, 112-115.

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[11] McMurry, 106-107.

[12] Steven E. Woodworth, *Davis and Lee at War* (Lawrence: University Press of Kansas, 1995), 40.

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[14] McMurry, 108-109, 113.

[15] Ulysses S. Grant, *Personal Memoirs of U. S. Grant* (Cleveland: The World Publishing Company, 1952), 344.

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[19] Woodworth, *Jefferson Davis and His Generals*, 29.

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[22] John B. Jones, *A Rebel War Clerks Diary* (New York: Sagamore Press, 1958), 28.

[23] Woodworth, *C.W. Generals in Defeat,* 14.

[24] Woodworth, *Jefferson Davis and His Generals,* 31, 53.

[25] O.R., vol. IV, 481.

[26] O.R., vol. IV, 491, 513-514.

[27] O.R., vol. IV, 517.

[28] O.R., vol. IV, 523.

[29] O.R., vol. IV, 539.

[30] O.R., vol. VII, 710-711.

[31] O.R., vol. IV, 491.

[32] O.R., vol. IV, 492-493, 523.

[33] O.R., vol. LII, pt. II, 239.

[34] O.R., vol. LII, pt. II, 245-246.

[35] O.R., vol. VII, 844-845.

[36] O.R., vol. VII, 860-861.

[37] Jones, 41.

[38] O.R., vol. VII, 844; Woodworth, *Jefferson Davis and His Generals, 61, 70.*

[39] Woodworth, *Jefferson Davis and His Generals,* 80.

[40] Grant, 157.

[41] Grant, 158.

[42] Grant, 151.

[43] O.R., vol. VII, 130-131, 863-864.

[44] O.R., vol. VII, 255-256.

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[46] Woodworth, *Jefferson Davis and His Generals,* 82-83.

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[64] O.R., vol. XVII, pt. II, 614.

[65] O.R., vol. XVII, pt. II, 628.

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[73] Woodworth, *Jefferson Davis and His Generals,* 160, 162, 184.

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[76] O.R., vol. XXX, pt. II, 55-56, 65-69.

[77] O.R., vol. LII, pt. II, 533.

[78] O.R., vol. LII, pt. II, 534.

[79] O.R., vol. LII, pt. II, 534.

[80] O.R., vol. LII, pt. II, 533-535; O.R., XXX, pt. II, 148-149.

[81] Woodworth, *Jefferson Davis and His Generals,* 239, 240, 243, 255.

[82] Boritt, 83.

[83] Sherman, 277.

[84] Grant, 343.

[85] Grant, 343.

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[114] Woodworth, *Davis and Lee,* 203, 233, 248, 249, 251-252.

[115] Woodworth, *Davis and Lee*, 298.

[116] Woodworth, *Davis and Lee,* 329.

[117] George F. R. Henderson, *Stonewall Jackson and the American Civil War* (Gloucester: Peter Smith, 1968), 481-482, 484.

[118] McMurry, 118-119.

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[125] McMurry, 139.

[126] Alexander, 356, 364.

[127] Poague, 119, 113.

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CHAPTER 3

ORDNANCE, EQUIPMENT, LOGISTICS AND TRAINING

From the onset of the American Civil War, the field artillery corps of the Army of Northern Virginia and the Army of Tennessee had different levels of readiness in terms of ordnance, equipment, logistical support, and training. Ordnance refers to the cannons themselves. In 1860, prior to the American Civil War, artillery ordnance in the U. S. Army consisted of guns, howitzers, and mortars. The ordnance was muzzle loading, loaded from the front of the tube, or breech loading, loaded from the rear of the tube. Field artillery during the American Civil War comprised the use of mobile guns and howitzers on the battlefield. The history of field artillery can be traced back to Gustavus Adolphus of Sweden when he began to use light artillery on the battlefield from 1610 to 1622. Frederick the Great improved the artillery branch when he introduced horse artillery to his armies from 1740 to 1786. Napoleon Bonaparte of France took field artillery to a new level of effectiveness and maneuverability with the introduction of a corps of drivers and standardized instruction. French Lieutenant General Jean Baptiste Vaquette de Gribeauval introduced the formation of batteries within the field artillery. He also introduced the innovation of producing gun carriages that could be used interchangeably in 1765.[1]

At the beginning of the war, the Nashville armory in Tennessee had four field pieces, one of which was an unserviceable four-pounder and another damaged twelve-pounder. Although the Provisional Army of Tennessee was formed on 6 May 1861, in a letter to President Davis dated 2 July 1861 Tennessee Governor Isham Harris stated ten companies of artillery were formed but not even one could be listed as completed yet.[2]

The situation saw no improvements by the end of the month. In a document dated 31 July 1861 the Provisional Army of Tennessee listed the following artillery forces: In Middle Tennessee, none; in East Tennessee, one battery with 110 men, four obsolete six-pounders and two howitzers; in West Tennessee, 251 men with no field pieces listed.[3] The state then turned to its citizens for help and private companies began producing guns for the army. Few batteries had all required cannon, caissons, and horses when they were organized.[4]

The overall situation in the west was bleak as well. Armories in the west had little to no ordnance. In early 1861, Mississippi had only two twelve-pound and six six-pound cannons. Louisiana claimed it captured some guns from the Baton Rouge arsenal, however, the artillery was sent to Virginia when the Washington Artillery Battalion was transferred east. Because of the lack of weapons, some batteries were required to use obsolete U.S. and Mexican cannons from the Mexican-American War of 1846-48. One battery even took an old twelve-pounder from the campus of the Arkansas Military Institute.[5] Albert Sidney Johnston had little field artillery when he assumed command in September 1861. He had nine batteries in his army. As late as November 1861 there were still serious armament issues in the west, on 7 November 1861 Brigadier General Lloyd Tilgham expressed great concern over the condition of his artillery in Kentucky. He had one battery with six guns and only ten rounds of ammunition per gun and another battery with only sixty men and no cannons.[6]

The situation was quite different in the Army of Northern Virginia. Batteries were being equipped as early as late May 1861. For example, the Beauregard Artillery was issued four ten-pound Parrott rifled guns on 24 May 1861. Many batteries were

already formed into battalions by June, issued caisson horses, and all the equipment necessary to conduct their missions. Rifled Blakely guns were also supplied to units in the Army of Northern Virginia early in the war.[7] In stark difference from any other state in the Confederacy, Virginia had 69 brass and 221 iron field artillery pieces in its possession before the war began.[8] Even as late as April 1865 an artilleryman in the Army of Northern Virginia stated, "Guns were plentiful, men and horses scarce."[9] This situation was not the case in the Army of Tennessee.

In November 1861 the Department of Northern Virginia, which later became part of the Army of Northern Virginia had seventy-one artillery pieces.[10] On 31 July 1861, the Provisional Army of Tennessee had just six field artillery pieces.[11] The number of weapons for both armies expanded, however, the Army of Northern Virginia grew more quickly and larger than its counterpart in Tennessee. For example, the Army of Northern Virginia had 175 field cannons in its inventory on 28 March 1862.[12] By comparison, from October 1861 to late April 1862 the Army of Tennessee had in its possession just 129 artillery pieces.[13] The Army of Northern Virginia sharply increased its artillery force to 273 guns by October 1862.[14] The Army of Tennessee had just 125 weapons in its force by March 1863.[15] The number of weapons in Robert E. Lee's army decreased to 186 on 31 December 1862; however, it still possessed sixty-one more field artillery pieces than the Army of Tennessee in March 1863.[16] However, by 10 August 1863, following the Battle of Gettysburg, on 1-3 July 1863, the Army of Northern Virginia once again increased its field artillery corps to 241 guns.[17] By comparison, the Army of Tennessee had just 160 pieces of artillery on 31 October 1863 and this number fell to 114 weapons by 10 December 1863.[18] By June 1864, the field artillery corps of the Army of

Northern Virginia dipped to 196 weapons.[19] Some parity in strength of the two artillery corps was achieved around this time, as the Army of Tennessee possessed 187 guns on 10 June 1864.[20] The parity did not last long. By September 1864 the number of artillery pieces in the Army of Tennessee fell to 124 weapons, and by December 1864 the number of guns had been slashed to a mere fifty-nine.[21] As late as 1 January 1865 the Army of Northern Virginia had 282 field artillery pieces.[22]

Prior to the Battle of Cold Harbor, on 31 May to 3 June 1864, Robert E. Lee was able to manage no less than 275 cannons, a nine gun per 1,000 infantry ratio.[23] This ratio was more than double that of the Army of Tennessee, which was less than four guns per 1000 at this time. On 31 August 1864, the Army of Tennessee could only field 124 pieces. Ten field pieces, 14 siege guns, and over 14,000 rounds of ammunition were lost in the Atlanta campaign.[24] This represented an average of five guns per 1,000 infantry. The increase in the number of guns per infantry at this time was due to the loss of infantry more than to an increase in artillery pieces. As a comparison, on average during the war Union forces usually averaged three guns per 1,000 infantry, occasionally getting up to four guns per 1,000 infantry. Robert E. Lee placed a high premium on artillery as already alluded too; Lee often averaged between seven to ten guns per 1,000 infantry.[25]

As the war progressed, the problem of inferior weapons in comparison to the Federal artillery became more evident. Of particular concern was the six-pound howitzer, one of the main weapons of the Confederate artillery in both the Army of Northern Virginia and Army of Tennessee. In an after action report from January 1862 the shortcomings of the six-pounder was noted. The report stated the six-pounder cannot maintain action with any other longer-range weapon unless the enemy batteries are at

close range.[26] One battery commander in the Army of Tennessee stated, "I found the lack of long-range guns was a great drawback to our batteries, for the enemy could, at a distance too far from us, fire upon our lines without interruption and in perfect safety."[27] In addition to range problems with the six-pounder, both the six and twelve-pounder were considered too heavy for use, especially by the cavalry. These six and twelve-pound guns needed to be modernized and were categorized as obsolete. During the American Civil War, the most effective overall weapon was the twelve-pound smoothbore Napoleon.[28] It weighed 500 pounds less than the older twelve-pound weapon developed in 1841 and was shorter and much more maneuverable.[29]

In November 1862 the First, Second, and Third artillery brigades, and the reserve artillery brigade located in middle Tennessee, combined had forty-four guns; twenty-two of these, were obsolete six-pounders. They had no light twelve-pound Napoleons.[30] The Army of Northern Virginia, by comparison, had twenty-eight Napoleons and 102-rifled artillery pieces in October 1862; however, forty-eight percent of Lee's artillery was classified as obsolete.[31] In March 1863, the Army of Tennessee had 125 guns of nine different variants; forty of these were obsolete six-pounders and another forty were the heavy twelve-pound howitzers. Bragg's Army of Tennessee had only sixteen light twelve-pound Napoleons at this time. Sixty-four percent of Bragg's weapons were obsolete and needed replacement.[32] By August 1863, the Army of Northern Virginia possessed ninety-eight Napoleons and 117 other rifled weapons, it no longer had any smoothbore six pounders.[33] Only nine percent of Lee's artillery could be classified as obsolete at this time. From January to April 1863, the Army of Northern Virginia received forty-nine new light twelve-pound Napoleons; the Army of Tennessee received

five![34] In the Hardee report of 14 December 1863, the Army of Tennessee had eighty-seven artillery pieces, eighteen of these were six-pounders and twenty-six were twelve-pound howitzers. Forty-nine percent of the army's artillery pieces were still classified as obsolete or in need of replacement. The number of light twelve-pound Napoleons rose to just thirty-three.[35] As late as April 1864 the Army of Tennessee still had thirty-eight obsolete weapons, which constituted thirty-two percent of its field artillery force. It possessed only fifty-seven Napoleons and twenty-four rifled weapons. Ironically, the horse artillery in the Army of Tennessee, were the weight of the six-pound guns and twelve-pound howitzers would be of the utmost concern, had no light twelve-pound Napoleons.[36]

At the beginning of the war, there was no significant amount of Federal cannon or artillery ammunition captured from Union forts that fell into Confederate hands. The total number of cannon captured throughout the Confederacy is reported to be thirty-five weapons.[37] However, as the war progressed the situation improved as Federal weapons and ammunition were captured.[38] This was especially true in the field artillery corps of the Army of Northern Virginia. The Army of Northern Virginia was much more successful on the battlefield and therefore captured more weapons, ammunition, and equipment than did the Army of Tennessee. At the beginning of the war, primarily action during the 1st Battle of Bull Run, on 21 July 1861, up until 16 August 1861 the army in Virginia captured twenty-seven Union artillery pieces.[39] Colonel E. P. Alexander states that in 1862 the Army of Northern Virginia captured nearly forty "beautiful United States three-inch Ordnance Rifles."[40] Following the Seven Days campaign from 25 June to 1 July 1862, the Army of Northern Virginia captured fifty-two field artillery pieces.[41]

During the Battle of Harper's Ferry, West Virginia, on 12-15 September 1862 Robert E. Lee's forces captured seventy-three cannons.[42] Following the Battle of Winchester, Virginia, on 13-14 June 1863, the Army of Northern Virginia captured twenty-eight artillery pieces, nearly all of them rifled.[43] The Army of Northern Virginia, in addition to capturing more weapons than the Army of Tennessee, did not lose as many as the Tennessee force did on the battlefield.

During the Battle of Shiloh on 6-7 April 1862, the first major combat for the Army of Tennessee, the Rebels captured twenty-nine Federal artillery pieces but lost thirty of their own. This allowed the army to exchange some of its weapons for more superior Federal pieces.[44] The Battle of Stones River, fought from 31 December 1862 to 2 January 1863, though a strategic loss for the Army of Tennessee, netted it twenty-eight Union artillery pieces.[45] Following the Battle of Chickamauga, Tennessee, on 19-20 September 1863, E.P. Alexander claimed the Army of Tennessee captured thirty-nine Union artillery pieces.[46] The army's ordnance officer claimed it captured sixty pieces of artillery.[47] Union after action reports acknowledged the loss of thirty-nine guns.[48] The Battle of Chickamauga was also the only notable victory for the Army of Tennessee during the war and the last battle in which any sizeable numbers of Union artillery were captured. During the Chattanooga campaign, from 23-25 November 1863, which included the battles of Lookout Mountain and Missionary Ridge, the Army of Tennessee lost forty artillery pieces.[49] These losses essentially negated the gains the Army of Tennessee netted in artillery just two months earlier. During the Atlanta campaign, from May 1864 to September 1864, the Army of Tennessee lost forty-eight artillery pieces. So many guns were credited to the Army of the Cumberland, forty-six of the total, that

Union Major General William T. Sherman wrote his subordinate commanders to explain the numbers so there would be no "misunderstanding" and gave credit to all the Federal forces in operation during the period.[50] During operations from October 1864 to January 1865, the U. S. Army's chief of ordnance for the Department of the Cumberland indicated sixty-four field artillery pieces were captured from the Army of Tennessee.[51] John Bell Hood, commander of the army during this time, acknowledged the loss of fifty-four weapons during his invasion of Tennessee.[52] To illustrate this dramatic reduction in capability, in September 1864 the Army of Tennessee was in possession of 124 artillery pieces, by December 1864 this number fell to a mere fifty-nine guns.[53] Hood's campaign in Tennessee proved disastrous for both the Army of Tennessee and its field artillery corps. The field artillery corps and the Army of Tennessee virtually ceased to exist.

Another source of good ordnance, with one exception, were English rifled guns bought through the Union blockade. However, having to run the blockade to reach the Confederacy they were always in short supply. The Clay, Whitworth, Blakely, and Armstrong shunt-pattern guns were all English made weapons used by the Confederacy during the war. The Clay was a breech-loader and in testing, every round fired "tumbled" and impacted nearer the gun than the target. After firing the seventh round, the breech cracked and disabled the gun. The Whitworth came in a six-pound muzzle loading and twelve-pound breech loading variant. These guns were much sought after due to their long range and accuracy. The Blakely gun was a twelve-pound muzzleloader and when firing non-Confederate ammunition performed very well.[54] The Blakely gun was extremely effective at ranges over 2,000 yards with solid shot.[55] The Armstrong shunt-gun was also a muzzle-loader and perhaps the best of them all. The Army of

Northern Virginia before the end of the war obtained six guns, unfortunately too late to be used in battle.[56]

The weapons and ammunition produced in the South for the Army of Northern Virginia and the Army of Tennessee were of lesser quality than those produced in the North for Union forces. Colonel Edward Porter Alexander, Chief of Artillery for Lieutenant General James Longstreet's corps in the Army of Northern Virginia, called the ammunition that filled its caissons "wretched." The poor quality of ammunition "was the greatest incubus under which the artillery labored."[57] A battery in the Army of Northern Virginia during the Battle of Fredericksburg, Virginia, on 13 December 1862, was withdrawn due to defective ammunition.[58] Southern gunpowder was identified to be inferior to Union powder resulting in ineffective use of range tables in the artillery manual.[59] One battery commander in the Army of Tennessee complained, "Our powder, also, I think inferior" and stated that nearly all of the seventy-three rounds of six-pound spherical case shot he fired burst short.[60]

The Army of Northern Virginia had some advantages in weapon production over its counterparts in the Army of Tennessee. At the beginning of the war, there was only one plant in the South capable as a cannon foundry and rolling mill, the Richmond Tredegar Works located in Richmond, Virginia. No other plant in the Confederacy produced a cannon or its ammunition in the previous fifty years. The Army of Northern Virginia was completely supplied by this arsenal. During the war, this plant manufactured or repaired 1,396 artillery pieces.[61]

The civilian manufacturing companies in the west could never keep up with the demand for artillery. Many of the weapons produced in the western facilities were

supplied to western units. Many of the guns produced were defective and poorly attached to carriages some were worthless. Eighty percent of the cannons made by the five major foundries in the west were smoothbore weapons; most of these were U.S. Model 1841 six-pound guns and twelve-pound howitzers.[62] Re-supply of losses sustained by the Army of Tennessee fell on arsenals at Columbus, Macon, and Augusta, Georgia, and Selma, Alabama. All of these arsenals were already overwhelmed with orders and could not replenish the losses.[63]

There were several different types of ammunition used during the war. Canister shot was used against massed troops at short distances. Canister was comprised of a tin cylinder filled with iron balls packed in sawdust. Grape shot and spherical case or shrapnel are all variations of canister shot. Projectiles were also used and divided into two classes, solid shot or shells. Solid shot was just as the name implies, solid. Shells were hollow shot filled with explosive and fitted with a fuse of some type. Spherical case or shrapnel shot fell under the category of hollow shot.[64]

The range and effects of this ammunition varied by type. Solid shot was effective up to 1,000 yards against infantry and 1,200 yards against cavalry. Ricocheting solid shot was effective out to 1,900 yards. Solid shot could produce devastating effects. One round of solid shot has been known to disable up to forty men. A six or twelve-pound ball has gone through six men at eighty yards. Shells were less accurate than solid shot but produced a greater demoralizing effect due to their explosion and noise. The maximum effective range of shells was 2,000 yards. Shrapnel was effective up to 800 yards and the bursting shells threw the fragments sometimes as much as 300 yards.

Grape and canister shot were effective up to 600 yards but were most effective between 400 to 450 yards.[65]

The Confederacy also had quality issues with the fuses it used on its projectiles. The Bormann fuse was considered by the United States Army prior to the American Civil War as "by far the best and most regular of any now in use."[66] A small amount of smoothbore ammunition, fitted with Bormann fuses, was on hand in Southern arsenals when the war began. This ammunition and fuse were of good quality but were depleted early in the war. The Bormann fuse was adopted by the Confederacy and a factory was established to manufacture it. Large quantities of this ammunition and fuse combination were sent to the field in the summer of 1861. Problems with its performance were immediately identified. Tests showed that four-fifths of the shells fitted with this ammunition exploded prematurely, many still in the cannon. The manufacturing machinery was overhauled and a fresh batch produced and sent to the field. The results were the same. The problem was identified as the horseshoe shaped plug failing to seal, which allowed flame to reach the charge of the shell prematurely. Repeated attempts to correct the problem proved ineffective. In January 1863, following the Battle of Fredericksburg, the Army of Northern Virginia requested that the Ordnance Department replace Bormann fuses with paper fuses as a result of fratricide from prematurely exploding shells. Artillery was rarely fired over the heads of advancing infantry because of the problem with the Bormann fuse. Paper fuses in the Army of Northern Virginia replaced Bormann fuses after the Battle of Chancellorsville, Virginia, on 2-4 May 1863. However, the ammunition combined with the Bormann fuses had to be used up and their ill effects plagued the Army of Northern Virginia through the Battle of Gettysburg,

Pennsylvania, on 1-3 July 1863. The use of paper fuses in the Army of Northern Virginia essentially corrected the problem and no more complaints concerning smoothbore ammunition were expressed.[67] The U. S. Army also used paper fuses during the war. The advantage of this fuse was its simplicity and ease of use.[68]

The ordnance officer for the Army of Tennessee apparently did not agree with Colonel E. P. Alexander's assessment of the Bormann fuse. In March 1863 he stated, "The Bormann fuses are preferable to paper, as the first is surer to explode projectiles."[69] However, it appears at least one of his battery commanders agreed with Alexander's opinion of the Bormann fuse. Captain O. W. Barret stated in February 1863 that, "Our Bormann fuses, in my opinion, are very inferior"; "My shells, ignited by red, green, and black (paper) fuses, were the most effective and accurate projectile which I used in this battle."[70] Another battery commander in the Army of Tennessee reported on 16 February 1863 that, "I met with a great deal of trouble from the great number of friction primers that were worthless."[71] On 11 October 1863 the ordnance officer for Breckinridge's division reported the friction primers "as perfectly worthless and unreliable."[72] However, other reports stated the friction primers "did very well."[73]

The quality of rifled ordnance and its ammunition were an even greater problem for the Confederacy than smoothbore ordnance and ammunition. Its problems continued throughout the war and were never resolved. The Army of Northern Virginia possessed the only rifled ordnance at the beginning of the war. It had six ten-pound Parrott rifles and a couple imported Blakely guns. However, several foundries began producing rifled cannon for the Confederacy. Southern foundries had unique problems making rifled weapons. They lacked the precise machinery to make precision rifling and as a result, the

twist dimensions, and weight of the guns often varied from foundry to foundry. The rifled projectiles made for the guns in the Southern foundries were called the Burton and the Archer. They were shown to be worthless since their lead base did not impart the spin that was expected. These projectiles were discontinued early in 1862. A new projectile was developed and it was only a slight improvement. It failed three out of four times to connect with the grooves of the rifled cannon and "tumbled" instead of spinning out of the tube. Those that did impart a spin and produced an accurate trajectory failed to explode three out of four times. It was of little value on the battlefield. A new rifled projectile was developed for 1863 but it was only slightly better than previous versions.[74] However, a report from the ordnance officer of the Army of Northern Virginia in May 1863 stated that, "Whitworth shells, fabricated at Richmond, are a decided success; they did admirable execution," and that "artillery officers speak of great improvement in our projectiles and ammunition."[75]

An illustration of the poor quality of Confederate rifled ammunition was seen during the siege of Knoxville, Tennessee, in the fall of 1863 when four captured Union Parrott rifles fired one-hundred and twenty Confederate made rifled shells, only two rounds did not "tumble" or burst prematurely. Premature detonation of rifled shells was corrected by the development of the Girardey fuse during the fall of 1864. This fuse may have been better than anything Federal forces had. It was also unique in that it was separate from the shell so it could be applied to any rifled shell the gunner wished to make percussion detonating.[76]

During the Stones River campaign, a lack of pre-combat inspections in the Army of Tennessee led to incorrect ammunition types and amounts being placed on gun

caissons, as well as a failure to identify faulty friction primers. This resulted in guns not being able to fire or be fully engaged during battle.[77] After the Battle of Stones River, the army was up to twenty batteries with eighty guns. By April 1863 the army had 129 guns but was still outmatched nearly two-to-one by the Federals. Nevertheless, this was not the only problem. The army also was short ammunition following Stones River. Ordnance stores were also lacking sufficient supplies and paper fuses were worthless. Poor maintenance of equipment was also a problem in the field artillery corps at this time. Issues with the quality of ammunition and powder were also raised during the battle, in some cases rounds burst prematurely or not at all. Incorrect powder was used during manufacture; it was found that rifle instead of cannon powder had been used. Gun carriages also needed replacing on several guns. These problems did not put any batteries out of service but they did reduce overall efficiency. Also identified were specific shortages in fixed ammunition and rifled projectiles. The replacement of worn-out armament, particularly rifled weapons, also remained an issue. The rifled groves in the cannon wore down quickly and rendered the gun useless.[78] Ordnance producing factories could not keep up with demand.

The Army of Tennessee experienced the first signs of a problem that plagued it for the remainder of the war, a lack of healthy horses for the artillery. A dearth of these horses seriously affected the maneuverability of artillery on the battlefield. By May 1863, reports indicated that one in four horses were unserviceable. To alleviate the shortfall, Bragg impressed horses from the citizens of Atlanta. Some citizens, not wanting their horses drafted into the army, hid them in basements and cellars.[79] Lack of horses was also a problem in the field artillery corps of the Army of Northern Virginia as

early as August 1862.[80] Horses were extremely important to the field artillery as evidenced by the fact that the United States Army's *Artillerist's Manual* of 1860 devoted twenty-one pages to the horse, covering their qualities, selection, age, bearing, rations, and transportation by sea and land. By comparison, the manual covered tactics in just ten pages.[81]

As late as September 1863, prior to the Battle of Chickamauga, most batteries in the Army of Tennessee had two or three calibers of guns. This reduced their efficiency for specific missions and increased the difficulty of ammunition supply. The Battle of Chickamauga was the only battle that the Army of Tennessee field artillery corps neared numerical equality with Federal forces.[82] During the Battle of Chickamauga, the artillery still had problems with fuses and as a result, it could not fire over the heads of Confederate infantry to support them in an assault.[83] The corps also continued to suffer from poor equipment. Cannon became unusable due to equipment malfunctions and they had many issues with gun carriages. Three-fourths of the rounds fired in one battalion failed to detonate during the battle. Worthless and unreliable friction primers also continued to be a problem.[84]

Upon his arrival to the Army of Tennessee in September 1863, shortly after the Battle of Chickamauga, Colonel E.P. Alexander, formerly a colonel in the field artillery corps of Robert E. Lee's army, found a clear difference between the two armies and their respective field artillery corps. Colonel Alexander stated, "Neither in armament, equipment, or organization was the western army in even nearly as good shape as the Army of Northern Virginia."[85] In speaking of the Army of Tennessee's field artillery corps he stated, "Only a few of the batteries of the artillery were formed into battalions,

and their ammunition was all of inferior quality."[86] The ordnance officer for the Army of Tennessee in March of 1863 had quite a different assessment of its ammunition. He stated, "The ammunition for artillery is supplied of good quality and well prepared."[87] Describing his time away from the Army of Northern Virginia Alexander stated, "We had been absent seven months, but it seemed like a year and every one."[88] Alexander clearly wished he had never left the Army of Northern Virginia.

What little high spirits remained in the Army of Tennessee and its field artillery corps following the victory at the Battle of Chickamauga did not last long. Following the Battle of Missionary Ridge, Tennessee on 25 November 1863, a little more than two months after Chickamauga, Bragg lost nearly one-third of his artillery, exactly thirty-nine guns. To replace the losses captured Federal weapons were sent back to the army. Ammunition losses, both expended and captured, took the armories at Atlanta and Augusta one month to replace.[89] As stated by December 1863 the Army of Tennessee had only eighty-nine guns; forty-nine percent were considered obsolete or in need of replacement.[90] However, the new interim commander of the Army of Tennessee, William Hardee, sent reports to Richmond that the field artillery corps, and the army as a whole, was in great shape. On 11 December 1863, Hardee telegraphed President Davis and reported, "The army is in good spirits, the artillery is reorganized and equipped, and we are now ready to fight."[91] Davis in turn sent Joseph E. Johnston a letter on December 23, 1863 and congratulated him on the condition of the army he was about to take command of.[92] Hardee continued the charade with the President's aide-de-camp on 24 December 1863 when again, he stated the losses in both artillery pieces, and horse had been replaced, and the army now had a "serviceable field artillery."[93] These reports were

at best half-truths that gave a false impression in the Confederate capital of the true situation. Joseph Johnston arrived in late December 1863 and soon learned the truth; all was not as Hardee portrayed it. In a letter to President Davis dated 2 January 1864 Johnston expressed his concerns about the army and the artillery.[94]

In spite of his weapon issues, Johnston believed one of the most serious problems in the field artillery corps was with the horses, many were not fit for combat due to the lack of forage. In an 8 February 1864 memorandum, Johnston stated the animals were so weak sixty-four of his 112 artillery pieces could not be moved. Johnston informed the government in the same memorandum that 400 fresh horses were needed to restore his field artillery corps.[95] In a letter sent just nineteen days later to Braxton Bragg, Johnston stated 1,000 horses were needed to make the artillery effective just in defensive operations.[96] The Confederate government did not believe Johnston based on the earlier reports from Hardee. There was such a large disparity in the numbers between the two reports the government hoped there was an error on Johnston's part. Perhaps based on these reports and Johnston's past record in Virginia, they saw it as another excuse not to conduct an offensive. Regardless of the reason, the Confederate government became doubtful of Johnston and his continued insistence for more horses, so on 4 March 1864 it ordered Brigadier General William Pendleton, Robert E. Lee's chief of artillery, to check on the situation.[97] After inspecting Johnston's artillery Pendleton made his report on 29 March 1864. He concluded the horses were in a less than optimum condition yet they were no worse off in artillery horses than anyone else in Confederate artillery service at that time.[98] William Poague, a member of the Rockbridge Artillery in the Army of Northern Virginia, stated horse care was extremely important in his units and that "kind

of knowledge was of great importance to artillery officers." Poague believed he was given command of a new artillery battalion in the III Corps primarily because of his ability to care for horses.[99] To make the credibility matters worse for Johnston, a subsequent report on 11 April 1864 indicated that 100 of the 400 to 500 fresh artillery horses sent to Johnston were diverted for other uses, such as going to wagon masters, clerks, and officers. Additionally, the Army of Tennessee quartermaster failed to turn in animals for rehabilitation; this resulted in the loss of 2,500 animals between January and April of 1864. The inspector-general summed up his report with the following, "I find every day I am furnishing him (Johnston) information concerning his transportation he never had before."[100] This incident did little to advance the opinion of Johnston in Davis' or the government's mind, especially since most of the problem was of Johnston's own making.[101] Johnston credibility was damaged because he continually complained of the condition and lack of artillery horses in his army while inspections indicated the condition of his horses were no worse than any other army. Additionally, when animals were supplied to Johnston, many were diverted for uses other than what Johnston indicated they were needed for.

The ordnance modernization program, started by Bragg in March 1863, over a year earlier, was still not complete and continued to go slowly due to a lack of raw materials.[102] Gun quality also continued to be a significant issue. Pendleton's inspections of the Army of Tennessee's field artillery corps found fifteen six-pounders he called nearly useless. Pendleton stated the six-pounder could not accomplish anything against the more powerful guns of the enemy, including even their long-range muskets. Twenty-seven twelve-pounders were also still present and were no less valuable than the

six-pounders. There were also still many deficient rifled shells. Leather harnesses for the artillery horses was also of poor quality and the new issue harness broke quickly and needed to be replaced often.[103]

Logistical policies of the Confederate government also negatively affected the Army of Tennessee throughout the war. Initially the army drew its food supply from Northern Tennessee, other areas of the state, as well as the rest of the west. If the area supplying the army experienced a drought, as it did in 1861 and 1862, the army might go hungry. To make matters worse were the policies of the Confederate supply operatives. Supply operatives from Richmond were sent through Tennessee in late 1862 to purchase supplies. The supply operatives from the Army of Tennessee were not willing to pay the prices the men from Richmond offered. These agents, representing different areas, often competed with one another for supplies. The Richmond agents therefore purchased large amounts of supplies from Tennessee and shipped them off to Atlanta for further distribution, primarily east to the Army of Northern Virginia. The Army of Tennessee also lost its bases of supply in Meridian and Jackson, Mississippi in the summer of 1862 when threatened Federal advances forced a shift to other departments. For several months, the army had no base of supplies. To make matters worse the Army of Tennessee often found that it safeguarded areas that supplied other armies, for example, northwest Georgia supplied the Army of Northern Virginia. The Army of Tennessee's campaigns were dictated by a need to protect its area of supply. In early 1863 the army was forced to string out in a seventy-five mile wide front in order to feed its troops and horses. Horses and mules trying to gather and distribute the food were worn out. During this same time, the depot in Atlanta sent half a million pounds of food to Virginia each

week. Not all of the Army of Tennessee's supply problems can be blamed on the Confederate government. The Army of Tennessee had significant issues with its own supply system. A severe example of this occurred in late December 1862 at the Battle of Stones River, Tennessee, almost two years after the war began. The Forty-fourth Mississippi Regiment lay in a low trench for two days waiting to charge a strong Union artillery and infantry position. When the order arrived the regiment stood up and charged armed only with sticks, they had not been issued weapons.[104]

Due to the lack of ordnance, ammunition, and equipment artillery training was an issue for both the Army of Northern Virginia and the Army of Tennessee. Colonel E. P. Alexander exclaimed, "The great majority of the batteries took to the field without ever having fired a round in practice, and passed through the war without aiming a gun at any target but the enemy."[105] Training, however, was still conducted in the Army of Northern Virginia. At the Virginia Military Institute following the execution of John Brown at Harper's Ferry, Virginia, in December 1859, target practice was performed daily with cannon. Nearly all of the cadets from the Virginia Military Institute fought with the Army of Northern Virginia. Many cadets later become drillmasters in many different camps.[106] Major Thomas J. Jackson, not yet "Stonewall", was an instructor of artillery at the Virginia Military Institute. The Richmond Howitzers, which would serve in the Army of Northern Virginia, also began training following the John Brown incident. When speaking of the battery, Frederick Daniel, a member during the war said, "it devoted itself to acquiring a thorough knowledge in the school of artillery tactics." The battery trained for both day and night operations. They drilled with the cadets from the Virginia Military Institute before going into action. The cadets were well regarded by the

men of the battery; Daniel stated, “Their drill and other warlike qualities were unstintingly admired.” “Drill was incessant”, Daniel observed. Target practice was also done, but limited due to scarcity of ammunition.[107]

The Rockbridge Artillery battery, also of the Army of Northern Virginia, was formed on 12 April 1861 under the command of William Nelson Pendleton, who later became the Army of Northern Virginia’s chief of artillery, and drilled with the Virginia Military Institute cadets before being sent to the front. Edward Moore, a member of the battery throughout the war stated, “An hour or two each day was spent in going through the artillery manual.”[108] Major Robert Stiles, who served for years in the field artillery corps of the Army of Northern Virginia noted, “We trained down and trained up, just as fighting men do, to a condition of bare, hard flesh…and perfect possession of all our fighting powers.”[109] Alexander said in his memoirs that he began forming training classes for artillery officers as early as June 1861.[110] Also by June 1861 artillery battalions were formed and training. They had all the equipment needed to conduct training and perform their mission. Artillery training was conducted twice daily. The guns were maneuvered during one exercise by hand and with horses during the other exercise. The men quickly became proficient in their tasks. During this period, one battery, the Beauregard Artillery, was presented a rifled cannon for its excellence in drill by the governor of Virginia.[111] The Army of Tennessee was having difficulty even equipping its batteries during this same time.

The Army of Tennessee’s field artillery corps suffered from an acute lack of training. At the beginning of the war artillery batteries in the Army of Tennessee could not begin training because they had few guns and little equipment issued to them. By

March 1862, more than a year after the war began; most batteries finally had the equipment they needed. However, training was still lacking. In an after action report of the Battle of Shiloh written in September 1862, Leonidas Polk stated, "one company of artillery…from the scarcity of ammunition, had never before heard the report of their own guns."[112] Company grade battery officers did the training such as it was in the field artillery corps. Few of these officers in the Army of Tennessee had any prior military experience. Many officers were as ignorant as their men concerning tactics and maneuvers. Some batteries in the Army of Tennessee had never fired their cannons prior to the battle of Shiloh in April 1862 due to lack of ammo, therefore having no target practice. During the winter at Murfreesboro, December 1862 timeframe, training in drill and tactics took place daily. Training was continued during the lull after the fighting at Murfreesboro in January 1863. During this timeframe, they began a best battery competition in which the wining battery won a coveted new banner.[113]

Upon his arrival in late December 1863, Joseph E. Johnston saw the poor training of his field artillery corps and instituted a new training program. As a part of the training program artillery battalions underwent ere inspection each Saturday, gun crews began target practice at ranges from 600 to 1,000 yards on ten-foot square targets, and mock battles were conducted.[114] These mock battles took place between divisions and began in the spring of 1864. Artillery would take place in these "battles" firing powder charges at one another. Commanders had the ability to practice coordination and maneuver during these training exercises. These types of exercises were not common during 1862 or 1863. This appears to be the first concerted effort of an effective artillery-training program in the field artillery corps of the Army of Tennessee and did not occur until late in the war.

Also late in the war, during its final winter, a formalized artillery examination was given to artillery officers in the Army of Tennessee at the Mobile garrison. Failure of the examination resulted in the officer not being promoted.[115]

Although target practice may have been limited due to lack of ammunition, much can be said for experience gained in combat. The field artillery corps of the Army of Northern Virginia experience proved crucial. The army that became the Army of Northern Virginia was first engaged in combat during the first Battle of Bull Run, Virginia, on 21 July 1861. This early action was seen as a benefit for the field artillery corps of the Army of Northern Virginia. Frederick Daniel says of the Richmond Howitzers, which fought there, "Their battery was the very nucleus of the artillery corps that was to contribute so effectively to the building up of the underlying fame of the Army of Northern Virginia." Daniel says, "Such battles, such scenes of those of the war, were first class educators, imparters of a knowledge beyond all college cramming."[116] The forces that would become the Army of Tennessee were not engaged in a major conflict until the Battle of Shiloh, Tennessee, on 6-7 April 1862, nearly nine months after the Army of Northern Virginia's first action.

The field artillery corps of the Army of Northern Virginia was better equipped and supplied than their counterpart in the Army of Tennessee. Lee's field artillery corps was able to procure more quickly, and in greater numbers, newer weapons, such as the twelve-pound Napoleons and rifled guns, than was the army out west. In addition, the Army of Northern Virginia captured much more Federal ordnance and therefore could substitute inferior or obsolete weapons at a much getter rate than the Army of Tennessee. Lee's army had as its supplier the only foundry capable of producing weapons prior to

the war. Though both field artillery corps would have benefited from more training, research indicates the Army of Northern Virginia did more artillery training than did the Army of Tennessee. Clearly, when a comparison is made in terms of ordnance, equipment, logistics, and training, the field artillery corps of the Army of Northern Virginia comes out on top.

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CHAPTER 4

ARTILLERY LEADERSHIP, ORGANIZATION, AND TACTICS

At the beginning of the American Civil War, the Army of Northern Virginia and the Army of Tennessee had a tactically ineffective organization for its field artillery corps.[1] The Confederate armies were not alone in possessing an ineffective artillery organization; the U. S. Army had the same organization at the beginning of hostilities. This organization was based on a European model in which single artillery batteries were attached to infantry divisions.[2] What would be crucial, however, is which army possessed the leadership in its artillery corps to recognize this deficiency and correct it. From militia foundations to the senior leadership of each army, there were distinct differences in the leadership abilities and experience levels in the Army of Northern Virginia and the Army of Tennessee; the same is true of the leadership displayed in each army's field artillery corps.

General Robert E. Lee displayed great care and concern for the artillery corps of the Army of Northern Virginia and understood the importance of its role on the battlefield. Lee mentions artillery often in his wartime correspondences. He also had a personal reason for care of the artillery in his army; his son Robert E. Lee, Jr. was a member of the Rockbridge Artillery Battery.[3] Lee, Jr. joined the unit in the spring of 1862.[4] General Lee, however, in a testament to his leadership abilities showed no favoritism toward his son or his son's unit and ensured they all did their duty. A clear example of this was seen during the Battle of Antietam, on 17 September 1862. During the fighting, General Lee rode up to the battery commander of his son's unit to inquire of its condition and supply of ammunition. Lee's son walked over to his father and asked,

"General, are you going to send us in again?" General Lee replied, "Yes, my son, you must all do what you can to help to drive these people back."[5] A witness to the event states, "His (General Lee's) equanimity and self-possession under the awful stress of that day were marvelous."[6] Lee also understood the importance of artillery on the battlefield. For example, during the Battle of Antietam Lee personally directed Major John Pelham to take three guns to try to turn the Union right flank.[7] Lee did not micromanage his artillery commanders. During the Battle of Chancellorsville, on 1-4 May 1863, he allowed his battalion commanders the flexibility to move some twenty-five guns forward to occupy abandoned Federal positions to support the infantry advance.[8]

Robert E. Lee took an active role in managing his field artillery. He wrote President Davis on 3 September 1862 and expressed deep concern over the amount and quality of artillery ammunition. Lee states, "I beg you will instruct the Ordnance Department to spare no pains in manufacturing a sufficient amount of the best kind, and to be particular, in preparing that for the artillery, to provide three times as much of the long-range ammunition as of that for the smooth-bore or short-range guns."[9] On 28 September 1862, he wrote the Confederate Secretary of War desiring the removal of several "inefficient" artillery officers and the "authority to reorganize and reconstruct all the unserviceable batteries of artillery of this army."[10] In early October 1862, Lee directed his chief of artillery to examine the entire artillery corps with the goal of "increasing the efficiency of artillery organizations."[11] Lee understood the difference in performance between the old and obsolete six and twelve-pound smoothbore guns and the new twelve-pound Napoleons, and ensured there was equal distribution of the Napoleons among his divisions.[12] On 5 December 1862 Lee wrote the Secretary of War

asking that all of the smoothbore six-pound guns, and as many twelve-pound howitzers as needed, be recast into twelve-pound Napoleons. He believed all of his batteries should be comprised of Napoleons, ten-pound Parrott rifles, and three-inch rifles. Lee states that these guns are "the best guns for field service," and "would simplify our ammunition, gives us less metal to transport, and provide longer and more accurate range of fire."[13] Lee repeated this request to President Davis on 2 March 1863.[14] In one of his most significant acts, early in February 1863 Lee directed his chief of artillery to examine once again the organization of the field artillery corps. This resulted in the abandonment of the ineffective brigade-battery organization and established artillery battalions.[15] On 8 June 1863 he ordered that an artillery board be established to make "suggestions in regard to changes and improvements" concerning the artillery and its projectiles and "establish tables of ranges of guns for the use of the Confederate States artillery."[16]

General Thomas J. "Stonewall" Jackson was another senior commander in the Army of Northern Virginia who also highly believed in the effectiveness and use of artillery on the battlefield. William T. Poague states of Jackson's use of artillery, "He always fought his artillery to the very last."[17] This may have been aided by the fact that Jackson was an artillery instructor at the Virginia Military Institute prior to the war. His students at the Virginia Military Institute discussed the "honor" it was to have been his pupil and "the good example" and "the many useful hints of conduct" he showed them.[18] He also was no micromanager of his artillery officers. In a letter to General Lee on 28 February 1863 he stated, "As I hold my chief of artillery responsible for the efficiency of his artillery, I feel it my duty to let him select his own officers."[19] Jackson also had no problem using artillery. After surrounding Harper's Ferry with artillery, Jackson stated to

Major General Lafayette McLaws on 14 September 1862, "The citizens can keep out of harm's way from your artillery . . . Demolish the place if it is occupied by the enemy, and does not surrender."[20]

The artillery corps of the Army of Northern Virginia also had many excellent artillery officers. Brigadier General E. P. Alexander was an outstanding and insightful artillery officer in the artillery corps of the Army of Northern Virginia. Robert E. Lee considered Alexander a close friend.[21] As early as late June 1861 Alexander recognized the importance of changing from the current brigade-battery organization to a battalion based artillery organization. He began organizing five batteries into a battalion in late June 1861. Unfortunately, before he could finish the re-organization he was called away to perform signal duty at Manassas. Alexander stated, "I regretted giving up the Artillery Battalion . . . It would have been a decided step in advance had we inaugurated, so soon, a battalion organization of several batteries."[22] Fairfax Downey described Alexander as a "gunner genius."[23] The battalion organization came to the field artillery corps of the Army of Northern Virginia about a year later. Alexander had the huge responsibility of advising Lieutenant General James Longstreet when George Pickett should begin his fateful charge upon the strong Union positions occupying Cemetery Hill during the Battle of Gettysburg, on 1-3 July 1863. Longstreet told Alexander, "I shall rely a great deal on your judgment to determine the matter, and shall expect you to let General Pickett know when the moment offers."[24] Given the strong Federal position, Alexander did not believe the assault should be made. He argued, "It seemed madness to launch infantry into that fire."[25]

Major John Pelham was another outstanding artillery officer in the Army of Northern Virginia. Pelham distinguished himself early in the war during the Battle of Bull Run, on 21 July 1861. During the fighting, his battery stopped the advance of an entire Union brigade. An artilleryman who fought with Pelham called him, "The most distinguished artillery officer in the Army of Northern Virginia."[26] General Robert E. Lee mentioned Pelham by name in after action reports following the battles of Second Bull Run, Sharpsburg, and Fredericksburg. Lee said of Pelham at the Battle of Fredericksburg, on 13 December 1862, where in action near the Port Royal Road his one section battled four Union batteries, "He sustained their heavy fire with the unflinching courage that ever distinguished him."[27] Another report of the battle states that guns under his command, "were admirably managed and bravely fought, and perfectly accomplished their object."[28] Union artillery Colonel Charles S. Wainwright even acknowledged Pelham's abilities' and the effectiveness of the artillery under Robert E. Lee. Wainwright observed, "The Southerners had an effective artillery force, part of it under the command of the dashing Major John Pelham."[29] General Lee was optimistic for Pelham and his future in his artillery corps. Following Pelham's death General Lee wrote to his wife on 19 March 1863; "I grieve over the loss of Major John Pelham . . . He had been stricken down in the midst of his career of usefulness and honor, which in its progress I had hoped would have expanded in brightness."[30]

Brigadier General William Nelson Pendleton, who became the Army of Northern Virginia's chief of artillery, is another who positively influenced the field artillery corps. Pendleton was the first commander of the Rockbridge Artillery and a member of the battery believed many men joined the unit because of the influence of Pendleton.

Pendleton also displayed an excellent ability to conduct inspections and organize the artillery corps. Under Lee's direction, Pendleton worked on the re-organization of the field artillery corps as early 2 October 1862.[31] President Jefferson Davis sent him to conduct an inspection of the artillery corps of the Army of Tennessee to try to determine its readiness and correct its faults.[32] During the inspection in March 1864, Pendleton found forty-two weapons that were "nearly useless."[33] The Army of Northern Virginia had long since rid itself of these weapons. He brought issues concerning the effectiveness and morale of the artillery corps to Robert E. Lee's attention. For example, in February 1864 Pendleton raised concerns to his commander about slow promotion rates in the artillery corps, artillery officers transferring to other branches for promotion, the negative effect this had on morale, and the lack of field grade officers in the artillery corps.[34] Pendleton did not have much of a reputation as an audacious fighter among the men, but he was no coward and was very valuable to Lee as an administrator.

There were numerous other less-known artillerymen in the Army of Northern Virginia who also distinguished themselves during the war. Colonel J. Thompson Brown, commander of an artillery battalion in the Second Army Corps, was one such officer. He was praised for his actions in numerous after action reports. Lieutenant General Thomas "Stonewall" Jackson praised him for action during the Battle of Fredericksburg; Robert E. Lee and Brigadier General R. E. Rhodes mentioned him in their reports for action during the Battle of Chancellorsville.[35] Brigadier General Armistead Long, chief of artillery for the Second Army Corps, called his death in May 1864, "deeply felt throughout the entire army" and added, "the artillery will ever remember him as one of its brightest ornaments."[36] Other artillery officers mentioned

often in after action reports include, Colonel S. Crutchfield, Colonel R. L. Walker, Colonel J. B. Walton, Lieutenant Colonel Thomas H. Carter, and Lieutenant Colonel R. S. Andrews.[37] Major Robert Stiles, who served with General Lee's army said, "I think even the infantry itself would admit that the artillery…yet furnished, in proportion to its numbers, perhaps more officers below the rank of general who were conspicuous for gallantry and high soldiership than either of the other two arms."[38]

The field artillery corps of the Army of Tennessee did not begin the war with many experienced leaders. All three of its first appointed field grade officers were West Point graduates who had served in the U.S. Army with field artillery experience. However, two of them soon transferred to the infantry for promotion purposes. Officers often used the artillery branch as a stepping-stone to other branches and higher rank. For example, of the twenty-five original officers in the Tennessee field artillery corps only one served as a field grade officer in the Army of Tennessee. The officers in the field artillery corps of the Army of Tennessee were relatively young, many without previous military experience, especially field artillery experience. During the period from 1862 to 1863, none of the artillery officers in the Army of Tennessee had any combat experience or had ever trained groups of gun crews, even though some were West Point graduates with service in the U.S. Army.[39] In March 1863, Lieutenant General William Hardee reported he had no field grade artillery officers in his corps.[40] As late as March 1864, of the fifty-seven artillery officers in Hardee's corps, only two of them had artillery experience before the war.[41]

When compared to the artillery officers in the Army of Northern Virginia, Daniel argues the artillery officers in the Army of Tennessee "were a rather lackluster,

undistinguished group."[42] It appears the artillery officers in the Army of Tennessee were aware of the distinction between the two groups. In March 1864, Braxton Bragg wrote Joseph E. Johnston stating, "Recently some complaints, I learn privately, have been heard from your artillery officers that they were being overslaughed by their juniors from the Army of Northern Virginia."[43]

There were, in all fairness, some bright spots in the artillery corps of the Army of Tennessee. Captain Isadore P. Girardey was one. As a battery commander during the Battle of Shiloh his battery "by a well directed fire of solid shot and shell he caused the enemy to waiver" and the Union position eventually fell.[44] However, it was not as an artilleryman where he did some of his best work, but as an inventor. Following his resignation for health reasons, he began working as the military storekeeper in the Augusta Arsenal. Here he oversaw the production of 130 Napoleons that went to the Army of Tennessee. He also invented a much-improved fuse for artillery shells, the Girardey fuse.[45] This fuse was unique for its time as it was carried separately and could be applied to any shell the gunner wished to make point detonating. E. P. Alexander called this fuse "probably better than any of the enemy's patterns."[46]

Because of internal politicking in the Army of Tennessee, several artillery officers achieved their rank due to loyalty to Braxton Bragg rather than due to performance. Bragg appointed James Hallonquist as his chief of artillery. He was a twenty-eight year old major who was not ready to handle this responsibility. He was however, a loyal Bragg supporter and that apparently was more important than his meager qualifications. Hallonquist was a micromanager who personally tackled tasks a subordinate should have done. For example, he traveled to Atlanta while the army was in winter quarters to

oversee the emplacement of several batteries there and did not return until several months later. He then oversaw the testing of several new six-pound guns when he should have been focused on administration and tactical innovation.[47]

Felix H. Robertson was another Bragg crony appointed into a senior leadership position in the field artillery corps of the Army of Tennessee. Bragg appointed the twenty-three year old captain as acting chief of artillery for Polk's corps in December 1862. He had attended West Point but resigned only three weeks before graduation in 1861. His men disliked Robertson because he was an extreme disciplinarian. His men believed him to be part Indian due to his dark complexion and slanted eyes, in turn called him "Comanche Robertson." After having too much to drink one night an artilleryman called him "half Injin" and was strung up by his thumbs, his feet barely touching the ground. After this harsh punishment, many of his men expected Robertson to be murdered.[48] An example of Robertson's leadership is seen during the Stone's River campaign. He lost three guns from one battery to the enemy but blamed it on the lack of infantry support.[49] The Army of Northern Virginia often fought artillery without infantry support. Robertson also questioned the courage of some of his men. He complained, "In more than one instance I found it necessary to cock my revolver and level it in order to bring men to a realizing sense of their duty."[50]

Bragg's interference in his artillery officers even extended down to the battery level. In the summer of 1862, Bragg overturned an election in the crack Washington Artillery of Augusta to appoint another favorite of his, Captain J.R. Burtwell. Burtwell did not last long because by the end of the year Bragg appointed him as chief of artillery

for an entire division.[51] Members of the battery in all Confederate armies elected company grade artillery officers.

Bragg did make some positive changes in his field artillery corps. In March 1863, Bragg began a weapons modernization program to improve the effectiveness of his artillery corps.[52] Robert E. Lee began similar efforts in early December 1862. Bragg also established an artillery board on 21 June 1863, for the same reasons as Robert E. Lee had done nearly two weeks earlier.[53]

The infighting and quibbling that negatively affected the senior leadership of the Army of Tennessee trickled down and negatively affected the field artillery corps. All field artillery chiefs were field grade officers and could not influence the general officer factions and power plays that percolated within the army. By spring 1863 the deteriorating situation, lack of advancement in the field artillery corps, and the way in which promotions were handled by Braxton Bragg and the Confederate government led to a very negative situation in the field artillery corps of the Army of Tennessee. The law regulated the promotion system for executive officers and the promotion approvals process by the war department moved were very slowly. A similar situation existed in the Army of Northern Virginia and many of its artillery officers transferred to other branches for promotion. The transfer of officers from artillery to other branches did not take place in the Army of Tennessee and resulted in a bottleneck in promotions and discontent among its officers. Robert E. Lee was more successful however in getting more senior ranking positions for his artillery leadership than was the Army of Tennessee. This in turn freed up more promotions for Lee's artillery officers. For example in spring, 1863 several of Lee's artillery battalion commanders outranked the

Chief of Artillery for the Army of Tennessee, Lieutenant Colonel James Hallonquist. At this same time in the Army of Tennessee the Chief of Artillery in Hardee's corps was a major and in Polk's corps it was a captain, the remaining division chiefs of artillery were made up of three majors and two captains. Bragg felt the lack of field grade officers had a detrimental effect on the ability to mass artillery on the battlefield. His promotion policies also had a detrimental effect on their morale and resulted in friction and jealousy. Bragg seemed to base his policy on a "favored son" or patronage system and had a total disregard for seniority.[54] For example in December 1862, Bragg enraged Nathan Bedford Forrest with his appointment of eighteen-year old Lieutenant John Morton as Forrest's artillery chief. Forrest exclaimed, "I'd like to know why in the hell Bragg sent that tallow-faced kid here to take charge of my artillery, I'll not stand it."[55] The feud between artillery officers who felt that they had been slighted for promotion and their new superiors did have one positive outcome, the adoption of standardized testing for evaluating officers for promotion to avoid the perception of favoritism.[56]

Following the departure of Braxton Bragg from the Army of Tennessee in December 1863, Joseph E. Johnston quickly realized he had problems in his field artillery corps. Johnston wrote President Davis on 2 January 1864. Speaking of his artillery he stated, it "is deficient in discipline and instruction, especially in firing; Its organization is very imperfect."[57] Johnston desperately needed experienced senior field grade officers, particularly lieutenant colonels and colonels. On 8 February 1864, he requested Colonel E. P. Alexander be sent to him as his new chief of artillery.[58] Robert E. Lee would have nothing of it; Lee did not want to give up Alexander. Lee was willing, however, to part with William Pendleton. Bragg told Johnston, "Should his (Pendleton's) services be

acceptable to you, I am authorized to say you can retain him."[59] Pendleton never moved to the Army of Tennessee. Johnston was still fighting this battle in March 1864. On 12 March 1864, Johnston complained to the government, "The defects in the organization of the artillery cannot be remedied without competent superior officers, for whom we must depend upon the government."[60] Johnston added on 30 March 1864, "I was not favorably impressed by the little I saw of our officers (artillery); They exhibited a childlike eagerness to discharge their pieces."[61] Johnston and the government continued to go back and forth with little being accomplished.

The organization of the field artillery corps of both Confederate and Union forces was inadequate early in the American Civil War.[62] The organization was based on the European model described by Union Colonel Charles Wainwright, in which single artillery batteries were attached to infantry divisions.[63] In both the Confederate and Union armies, artillery batteries were attached to infantry brigades. The field artillery corps of the Army of Northern Virginia and the Army of Tennessee adopted this brigade-battery organization. This organization was extremely inefficient. Under the brigade-battery organization, artillery batteries received all supplies and orders from the infantry brigade. This essentially negated the influence of the division chief of artillery on his batteries. Another extremely detrimental effect of the brigade-battery organization was that infantry officers had supervision over a branch they did not understand, know how to employ, or control properly. Infantry brigade commanders could not control both their infantry and artillery at the same time; the result was often artillery was not effectively utilized on the battlefield. During fighting infantry, commanders resented any attempt to send their batteries elsewhere on the battlefield, even if they were greatly needed.

Scattered batteries within these brigades also created uncertain lines of communication between the infantry and artillery commanders. Widely dispersed batteries also prevented the massing of artillery fires that are essential to achieve the desired effects on the target. A stark example of this is seen at the Battle of Malvern Hill on 1 July 1862. Prior to the assault General Lee ordered a massed artillery barrage on the enemy positions. Ample time was provided to gather the appropriate forces, from 10:00 am to 5:00 pm. General Daniel Harvey Hill described the results, "Instead of ordering up one or two hundred pieces of artillery to play on the Yankees, a single battery was ordered up and knocked to pieces in a few minutes."[64] The resulting infantry assault on Malvern Hill was a disaster for the Confederate forces.

In the Army of Northern Virginia, in addition to the batteries assigned to infantry brigades, there was also one artillery reserve battalion commanded by the army's chief of artillery. This reserve battalion was also very ineffective. It did not have good lines of communication with the infantry and therefore never available when needed.[65] To utilize artillery effectively on the battlefield the brigade-battery artillery organization needed significant improvement. As mentioned, artillery officers in the Army of Northern Virginia quickly saw the benefit of such change. There was no similar vision in the field artillery corps of the Army of Tennessee.[66]

On 22 June 1862, Robert E. Lee posted general order No. 71, which began to move the artillery reorganization in the right direction. The order stated all batteries in a division would fall under the division chief of artillery. Batteries were still assigned to infantry brigades. The order also gave control of the artillery reserve to the army chief of artillery.[67] In the organization of the Army of Northern Virginia for the Maryland

Campaign in September 1862, batteries were no longer attached under individual infantry brigades. Batteries were together in separate artillery groupings under each infantry division. The reserve artillery was still under the army chief of artillery.[68] On 4 October 1862, under the direction of General Lee, William Pendleton posted General Order No. 209, which consolidated the artillery by combining batteries that were deemed lacking in either men or material in an effort to make the field artillery corps more efficient.[69] The organization of the army in December 1862 showed no discernable changes from September 1862.[70]

The first mention of artillery "battalions" is made in the organization of the Army of Northern Virginia on 11 February 1863. Again, under the leadership of Robert E. Lee, William Pendleton, undertook this project. Pendleton said, "You (General Lee) some time since expressed to me the judgment that the custom of attaching batteries to brigades, and of grouping them in divisions, was not promotive of greatest efficiency in this arm."[71] To accomplish this Pendleton organized the artillery into four battalions under each of the two infantry corps. Each corps also had two reserve artillery battalions; as well, the army maintained a general artillery reserve consisting of two artillery battalions.[72] General order No. 20 posted on 15 February 1863 made the organizational change official.[73] When the Army of Northern Virginia was re-organized into three infantry corps, the artillery battalions had to be adjusted accordingly; on 2 June 1863, the new artillery organization was posted. Each infantry corps now had three artillery battalions instead of four and still maintained an artillery reserve of two artillery battalions. The general artillery reserve for the army was abolished.[74] E. P. Alexander stated this organization "was the first of the kind ever adopted by any foreign army" and

was subsequently copied by the U.S. Army, Prussia, Austria, France, and England.[75] In August 1863 the corps artillery reserves was disbanded and pushed up into each corps. Each corps now had five artillery battalions.[76] The field artillery corps of the Army of Northern Virginia maintained this organization for the duration of the war. However, prior to the Wilderness Campaign in May 1864 the First Corps artillery went from five artillery battalions to three.[77]

At the beginning of the war, there was little structure to the Army of Tennessee under General Albert Sidney Johnston. Its structure looked more like a corps than an army. The organization of the field artillery corps was non-existent. Batteries had between three to seven guns. There were no administrative standard operating procedures. In William Hardee's corps, Simon Buckner's division had no artillery yet a brigade under John Bowen had five batteries. In Leonidas Polk's corps, the 1st Division had only one battery while the 2nd Division had four batteries. In actuality, these divisions were truly only brigade size.[78]

The organization of the field artillery corps in the Army of Tennessee proved problematic. There was no single officer in charge of artillery operations during this time. Each of the three corps had a de facto chief of artillery. There was no specific battlefield function assigned to these corps chiefs of artillery. In fact, just prior to the Battle of Shiloh, Bragg stated he placed all artillery batteries "under the nominal orders of one of corps commanders, a trust it was simply impossible for him to execute."[79] To show the extent of their leadership capabilities and micromanaging, at the Battle of Shiloh one artillery chief relinquished his staff position so he could command a battery

from his home state.[80] After the death of Albert Sidney Johnston at the Battle of Shiloh, Pierre G. T. Beauregard assumed command of the Army of Tennessee.

Prior to the Battle of Shiloh, Beauregard acknowledged the fact that the artillery corps lacked experienced officers and thus needed to be subdivided and distributed among the corps "to enable us to obtain even a partial benefit from their presence on the field."[81] However, Special Order No. 41, which Beauregard posted on 26 April 1862, after the Battle of Shiloh, maintained the brigade-battery organization and dictated that four guns would be assigned to each infantry brigade.[82] Following Beauregard's unannounced vacation from the Army of Tennessee, Braxton Bragg assumed command.

The Army of Tennessee's organization on 26 May 1862 maintained the brigade-battery structure mandated by Beauregard.[83] This structure prior to the Battle of Stones River left the Army of Tennessee at a significant disadvantage compared to its Union adversaries. During the battle because of the brigade-battery organization infantry commanders argued over the use of artillery which resulted in poor communication and ineffective massing of fires during assaults. Also in the fall of 1862, Bragg formed the nucleus of a horse artillery. Robert E. Lee had formed horse artillery batteries nine months earlier in his army.[84] Prior to the American Civil War horse artillery was seen as indispensable in France and the United States Army placed much emphasis on its importance.[85] Bragg was in command for one year when he created the horse artillery in the Army of Tennessee. It is unknown why he took so long to employ this type of artillery, especially since he had commanded such a unit years earlier and strongly advocated its usefulness and mobility.[86] Just as the horse artillery in the Army of

Tennessee was in its infancy, its counterpart in the Army of Northern Virginia was reaching its apex.

In early January 1863, the Army of Tennessee maintained the same brigade-battery organizational structure.[87] In fact, General Order No. 7 posted on 17 January 1863 stated, "The previous orders in regard to the assignment of artillery to brigades will be rigidly adhered to."[88] As early as September 1862 the Army of Northern Virginia began to move away from the brigade-battery organization.[89] The Army of Tennessee began to move toward a consolidation of its artillery with General Order No. 76 posted on 9 April 1863. This order, however, only addressed the parking of artillery batteries together in its respective infantry corps areas.[90]

By the Battle of Chickamauga, on 19-20 September 1863 the Army of Tennessee established some groupings of batteries under infantry divisions. It was identical in appearance to the organization of the Army of Northern Virginia in September 1862. However, several infantry brigades still maintained its artillery batteries.[91] Colonel E. P. Alexander, came from the Army of Northern Virginia to serve in Bragg's army before the battle, but did not arrive in time to participate. He said of the poor performance of the Army of Tennessee during the battle, and several lost opportunities to crush isolated Federal units, "The loss was due entirely to the misfortune of inadequate organization, and lack of the trained staff."[92] Alexander continued, "Neither in armament, equipment, or organization was the Western Army in even nearly as good shape as the Army of Northern Virginia."[93]

In late November 1863, the Army of Tennessee moved to an infantry corps organization just as the Army of Northern Virginia did in February 1863. It also

established artillery battalions for the first time, nearly a year behind the Army of Northern Virginia. However, unlike Lee's army, which spread the artillery equally among its corps, one corps in the Army of Tennessee had two artillery battalions, and the other two corps had four battalions each. It also maintained the army reserve artillery that Lee dispensed with in June 1863.[94] This organization was carried through December 1863 with some batteries grouped into battalions and others merely grouped together under infantry divisions.[95] Braxton Bragg departed the Army of Tennessee in December 1863 and Joseph E. Johnston took his place.

Braxton Bragg failed to see that the artillery structure used during the Mexican War, and adopted by his army, was outdated and obsolete. He was tied to the old organization structure and could not remove himself from it. A primary reason for the ineffectiveness of the field artillery corps of the Army of Tennessee was in the brigade-battery structure. It had a crippling effect on the battlefield, as it did not allow fires to be concentrated. Bragg did not see the importance of massing fires or how the current organization negatively affected the field artillery corp's ability to concentrate guns. Administratively his division artillery chiefs had little power and were often little more than the senior battery commander in the division. There were no guidelines outlining the administration of the artillery. Under the new organization division, artillery chiefs were given increased authority both executively and administratively. They now controlled the tactical employment of their batteries in the division. They no longer answered to the infantry brigade commander. Also all batteries now camped together rather than with their infantry brigades. However, they still moved with and received their rations from the infantry brigades. Nevertheless, perhaps Bragg does not deserve all

the blame for the organizational problems of the field artillery corps of the Army of Tennessee. The highly effective changes adopted by the Army of Northern Virginia came as a result mainly through the efforts of its senior artillerymen. However, it was Robert E. Lee who motivated them to make these changes. It was not completely Bragg's fault that he lacked the insightful artillery officers possessed by Lee. It was his fault, however, in not providing the leadership to see that changes to his organization were needed.[96] This is especially ironic since Braxton Bragg was an artilleryman and Robert E. Lee was not.

In March 1864, Joseph E. Johnston completed his reorganization of the army, including the field artillery corps. The new organization combined all artillery batteries into battalions. Johnston was the first commander of the Army of Tennessee to introduce battalion organization to the field artillery corps. One corps had four artillery battalions, the other three battalions. Each battalion now had three batteries of four guns each and was assigned to an infantry division. However, the three-battalion army artillery reserve was continued under this organization. Johnston further organized the artillery into three regiments, one regiment had four battalions, and the other two regiments had three battalions each.[97] This move increased the effectiveness of the artillery of the Army of Tennessee to a level not seen since the Battle of Shiloh.[98] This organization was identical to the organization the Army of Northern Virginia adopted over a year earlier in February 1863. However, it was very much unlike the current organization of Robert E. Lee's artillery in that it maintained an artillery reserve. Lee had moved to a corps artillery reserve in June 1863 and completely did away with it in August 1863. Johnston maintained this organization during the remainder of his command, until July 1864.

Union artillery followed Lee's lead midway through its Overland campaign and pushed its artillery reserves down to corps level. Therefore, at the time when both sides' major armies dispensed with reserve artillery Johnston enlarged his reserves. Lee realized that having artillery in reserve leave it inactive in an emergency. Although Johnston's new organization was an improvement it still had some flaws. For example, on the march and in camp the artillery reported to the artillery regimental commander; in battle, the artillery reported to the division commander. This resulted in much confusion as to who was in charge, the artillery officers or infantry officers. Despite the confusion with command and control on the battlefield, Johnston significantly improved the long arm of the Army of Tennessee. The field artillery corps of the Army of Tennessee was at its peak in efficiency under Johnston.[99]

Following the Battle of Atlanta in July 1864 the new commander of the Army of Tennessee, John Bell Hood, abandoned the current organization and the reserve artillery battalions were pushed down to the corps level, exactly the same as the field artillery corps of the Army of Northern Virginia did a year earlier.[100] However, the change did not last long. Special Order No. 34, published on 14 November 1864, which removed the regimental artillery organization and reinstated the old division level organization.[101]

Prior to the American Civil War artillery was tactically seen as very effective in both the offense and defense. However, the U. S. Army's *Artillerist's Manual* of 1860 does not spend much time discussing tactics of the offense, more time is spent discussing the defense. The manual states artillery is extremely important to use with raw and undisciplined troops. The manual specifically mentions the effective use of artillery with raw troops at the Battle of Buena Vista by none other than Braxton Bragg.[102] This is

especially ironic since as the commander of the Army of Tennessee Bragg seldom used his artillery effectively. Artillery doctrine at that time stated that artillery should target the enemy's artillery on offense; used defensively it should target enemy infantry.[103] Napoleon Bonaparte knew the importance of artillery. In 1809 Napoleon stated, "The artillery, like the other arms, must be collected in mass, if one wishes to attain a decisive result."[104] He summed it up in 1813 when he stated, "Great battles are won by artillery."[105] From the onset of the war, the field artillery corps of the Army of Tennessee got off on a bad footing tactically. The governor of Tennessee focused his forces on defense along the Mississippi River and virtually neglected the Tennessee Border. As a result, more than one-half of the state's organized batteries were engaged in river defense with heavy artillery. All three of the artilleries first field grade officers were building river defenses instead of training their forces. This action by the governor left only small, scattered units of mobile field artillery.[106]

Artillery proved most effective defensively during the war. The Army of Northern Virginia used artillery effectively on the defense at the Battle of Fredericksburg on 13 December 1862. During the action at Fredericksburg Robert E. Lee's artillery was placed into entrenchments and held its fire until advancing Union troops were in range. They then opened fire with canister and grape shot. Union batteries could not respond because their own infantry was too close to the Confederate artillery.[107] The Army of Northern Virginia very effectively massed its fire during the battle. In "Stonewall" Jackson's corps alone, fourteen guns were concentrated on the left of the line while another twenty-one occupied the right; another twelve guns were positioned 200 yards to the front and right of these.[108] Robert E. Lee's army once again employed artillery

extremely effectively on the defense during the many campaigns in Virginia from 1864 to 1865.[109]In the western theater, artillery was effectively used on the defense during the Battle of Stones River on 31 December 1862 to 2 Jan 1863, unfortunately for the Army of Tennessee it was Union forces massing their fire. The Army of Tennessee effectively used artillery in the defense on 25 May 1864 at New Hope Church.[110]

Artillery was much less effective tactically on the offense. The Army of Tennessee was somewhat effective in employing artillery offensively during the Battle of Shiloh at the "Hornets' Nest." Here they were finally able to mass eleven batteries totaling sixty-two guns.[111] However, they were unsuccessful in using artillery on the offense at The Battle of Stones River in two different assaults.[112] One of the Army of Northern Virginia's first attempts to use artillery on the offense took place at Malvern Hill. Here Moorman's Battery of Stuart's Horse Artillery went forward to support the infantry assault on the hill. They were unsupported and therefore fires were not massed.[113] As individual batteries moved forward, they were fired upon by up to fifty federal pieces. Lee's forces also attempted to use artillery to probe and ascertain enemy strength and positions during the battle.[114]

Although artillery was not consistently successful taking the offense, there were notable exceptions. The Army of Northern Virginia at the Battle of Chancellorsville achieved one of the greatest successes of Confederate artillery on the offense during fighting at Hazel Grove.[115] Both sides often used unsupported artillery during the war, but to tremendous effect by the Rebels at Hazel Grove.[116] Union Major General Darius N. Couch described thirty pieces of Confederate artillery that advanced to within 500 to 600 yards of Federal artillery positions.[117] The Army of Northern Virginia massed 142

guns to support Longstreet's famous assault at the Battle of Gettysburg on 3 July 1863. It was one of the largest offensive employments of artillery during the war.[118] During the battle on 2 July 1863 six batteries under Lee's army charged in line to occupy an abandoned Union position. E. P. Alexander, who witnessed the event, states, "I can recall no more splendid sight…and certainly no more inspiring moment during the war, than that of the charge of these six batteries."[119]

As the war progressed and entrenchments became more prevalent, the use of artillery on the tactical defense was strengthened and significantly weakened its use on the offense. Terrain also often negatively influenced the use of artillery on the offense and accentuated its use on the defense. The increased range of rifled infantry weapons also played a limiting factor on the use of artillery offensively.[120]

In the Army of Northern Virginia, artillery, especially horse artillery, was often used for picket duty. It was placed in front of the main body of troops to give advance warning of or check an enemy advance.[121] Stonewall Jackson's corps commonly used Rifled Parrott guns for this duty.[122] During action on 9 October 1864 a battery of Stuart's Horse Artillery under the command of Captain J. J. Shoemaker displayed a tactic called "flying artillery" by a member of the battery; it was also called a "flying battery." In this tactic, one gun at a time would shoot then displace to another position in a leapfrogging manner, each covering the others' withdrawal. During the action, this battery, facing overwhelming odds and completely unsupported, was able to halt a cavalry assault.[123] Trout calls this action, "the finest display of the mobility and firepower of Confederate horse artillery during the entire war."[124] J. E. B. Stuart placed a great deal of importance on the use of artillery. He often used artillery as a rear guard, on

the offensive, and on the skirmish line or even ahead of it. Robert E. Lee often used his cavalry and its accompanying horse artillery in an advance as he did on 9 October 1863 against Union forces at Culpepper.[125]

Poor tactical use of the artillery at The Battle of Shiloh was a result of the brigade-battery organization employed by the Army of Tennessee. Batteries were scattered throughout the army. There was no coordinated effort to mass artillery on the battlefield. Batteries operated primarily on their own. Artillery primarily fired on infantry targets, not other artillery. This tactic was in direct contradiction of doctrine at that time that stated artillery on the offense should target enemy artillery. Unlimbered artillery provided a much larger target than a line of infantry and helped neutralize the enemy's defensive capabilities.[126]

At the Battle of Stones River Bragg saw no specialized role for artillery other than infantry support. There was no coordinated effort to mass fires prior to an infantry assault. Artillery's role in the battle was an afterthought. Artillery was unable to keep pace with the infantry during the 31 December assault at The Battle of Stones River.[127] One battery did employ indirect fire during the battle with some success.[128] During the battle, Bragg once again failed to mass his artillery fires and only employed them in a piecemeal fashion. Bragg missed an excellent opportunity to use massed artillery in an area called the "Round Forest" during the battle. The area was similar to the "Hornets' Nest" during the Battle of Shiloh where artillery fires were eventually massed effectively.[129]

Tactically, Braxton Bragg had little to no positive effect on the field artillery corps of the Army of Tennessee. Ironically, Bragg served as an artillery officer in the

U.S. Army from 1837 until 1856 and was viewed as somewhat of an innovator. His experiences in the Mexican War proved to be his downfall and he learned nothing from them. For example, during the Mexican War Bragg employed his artillery battery in the tactical defense at Buena Vista. Bragg estimated his artillery caused nine-tenths of the total enemy casualties during the fighting. Artillery during the American Civil War also performed best in the tactical defense.[130]

Bragg failed to appreciate the transition artillery was undergoing. His experiences with the old Army kept him from being able to understand or initiate the concept of centralized control, the tactical concentration of artillery fires, and the evolving supportive role of artillery. By the time of the American Civil War, his old tactics of placing batteries with brigades was obsolete. The tactical concept of massing artillery fires developed during the Napoleonic Wars was ignored by the U.S. artillery service. Massing fires was not used during the Mexican War. During the Mexican War artillery, batteries acted independently in most instances and rarely operated with other batteries. The most glaring examples of his failure to adapt to new tactics can be demonstrated in how he employed his artillery at the "Hornets' Nest" at The Battle of Shiloh and "Round Forest" at The Battle of Stones River.[131] Bragg seemed to rely more on the bayonet than the cannon. For example, during the Battle of Shiloh, one of Bragg's brigade commanders, Colonel Randall Gibson, asked for artillery support for his assault. The request was denied but in its place, "he bought me orders to advance again on the enemy." "In the execution of this order we charged repeatedly…and were repulsed on account of his severe artillery fire."[132] He continued, "It was clear to all commanding officers present … that we were but making a vain sacrifice of the lives of the troops."[133]

For his effort, Bragg rewarded Gibson by stating the attack failed because of the "want of proper handling."[134]

During the Battle of Chickamauga, the Army of Tennessee once again attempted to use the artillery offensively tactically as it had at both the Battle of Shiloh and the Battle of Stones River. In some cases, the Army of Tennessee employed its guns as close as 100 yards from Union positions. Once again, it also continued to employ their guns as batteries with infantry brigades. Artillery seldom employed in mass. The employment of the guns also lacked direction. James Longstreet, for example, who traveled west from the Army of Northern Virginia, had to give his commands for artillery directly to corps commanders who were more concerned with the movement of their infantry. Longstreet's artillery, and its commander E.P. Alexander, had not yet arrived on the battlefield. Longstreet sorely missed Alexander.[135]

The Army of Tennessee tactically used artillery defensively for the first time at Missionary Ridge in late November 1863. Bragg thought Missionary Ridge was a tactically superior location for his artillery and thus placed ninety-six guns there on the crest of the ridge. Bragg made the fatal mistake of placing his guns on the topographical crest of Missionary Ridge instead of the military crest. Due to the poor angle, the tubes of the guns could not be depressed to sweep the entire slope of the ridge. This created a blind spot on the slope of no artillery coverage. Bragg could have employed his cannons on the reverse side of the slope to lob shells over the ridge, essentially indirect fire. Indirect fire was not used often during the American Civil War but was used successfully by a battery in the Army of Tennessee just one day before during fighting at Lookout Mountain. The terrain on Missionary Ridge proved too difficult to move batteries up on

and thus proved equally difficult for batteries to escape if the need arose. Because of the poor emplacement on the ridge, advancing Federals entered the artillery's kill zone for about ten minutes; this was not enough time to do effective work. The guns were also widely dispersed along the ridge. In one section of the ridge, nearly a mile wide, there were only ten guns opposite 6,000 Federals massed in that section. By the morning of 25 November, much of the artillery of the Army of Tennessee was still being emplaced; many batteries therefore lacked earthworks during the battle. Enfilading fire opportunities were also squandered because batteries were not in position. The results of the battle on the field artillery corps were devastating. Bragg lost one-third of his artillery, thirty-nine pieces in all. This was Braxton Bragg's last battle with the Army of Tennessee, and unfortunately for the "old artilleryman," "resulted in an artillery disaster."[136]

Under the offensive minded John Bell Hood, the Army of Tennessee once again utilized its artillery in the tactical offense during battles such as Peachtree Creek and Ezra Church in late July 1864. Artillery employment during these battles was again limited and uncoordinated. The use of entrenchments also made the effective use of artillery on the tactical offense minimal. Hood used artillery very little in the battles around Atlanta.[137] Hood also used artillery sparingly during his assaults at Franklin.[138] Hood continued his perfect streak of poorly employing his artillery at the Battle of Nashville in December 1864 where his guns were spread out thinly and no fire was massed.[139]

Poor training and tactics helped lead to the demise of the Army of Tennessee. It failed to innovate and evolve in these areas. In fact, during the entire course of the war there was almost no thought given to training or the development of new tactics.[140]

Ironically, Braxton Bragg, who was an artillery officer, and had served very well as an artilleryman during the Mexican War, did little to advance his long arm while in command. He failed to see the need to adjust to the changes that took place in artillery tactically, organizationally, and in armament since the Mexican War.[141]

The Army of Tennessee and the field artillery corps in particular, had a series of commanders who failed to appreciate the significance of artillery or know how to employ it on the battlefield. Albert Sidney Johnston never fully considered artillery during his preparations for battle. Braxton Bragg was locked into obsolete artillery tactics of the Mexican War and appointed officers to senior positions based on his approval of them rather than on their performance or abilities. John Bell Hood was more impressed with an infantry charge than he was with an artillery barrage. Joseph E. Johnston was the only commander that seemed to appreciate the long arm. However, due to his poor performance on the battlefield he was never in command long enough to fully utilize the field artillery corps of the Army of Tennessee.[142]

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[122] Moore, 98.

[123] Trout, 106.

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[125] Trout, 198, 223.

[126] Daniel, *Cannoneers in Gray*, 31-32.

[127] Daniel, *Cannoneers in Gray*, 59-60.

[128] O.R., vol. XX, pt. I, 751.

During the American Civil War artillery was primarily a direct fire weapon, meaning the Cannoneers could see their targets they were firing upon. Indirect fire, as artillery is employed today, indicates the artillerymen cannot see their targets and require an observer to direct and adjust their fires.

[129] Daniel, *Cannoneers in Gray*, 61-62.

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[134] O.R., vol. X, pt. I, 485.

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[139] Daniel, *Cannoneers in Gray*, 176.

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[142] Daniel, *Cannoneers in Gray*, 181.

CHAPTER 5

BATTLEFIELD RESULTS AND CONCLUSIONS

The ultimate measure of any military force's performance, taking into consideration all the variables that may affect it, is battlefield results. History demonstrates that based on battlefield results the Army of Northern Virginia was a much more successful organization than the Army of Tennessee. Union General George Meade made this point very clear in a letter to his wife on 5 June 1864. Describing the feelings of Ulysses S. Grant, Meade said, "Grant has had his eyes opened and is willing to admit that Virginia and Lee's army is not Tennessee and Bragg's army."[1]

Artillery is used today just as it was during the American Civil War, to support the maneuver commander; therefore, the success or failure of the infantry can be attributed to its artillery support. In both the offensive and defensive role, the field artillery corps of the Army of Northern Virginia, when compared to its counterpart in the Army of Tennessee, was more successful. Use in the defense was the most effective role for artillery during the war. The greatest examples of this use by the Confederacy were by the Army of Northern Virginia during the Battle of Fredericksburg, Virginia, on 13 December 1862 and the Battle of Cold Harbor, Virginia, on 1-3 June 1864.

During the Battle of Fredericksburg, General Robert E. Lee's force was very effective in massing its fires from several locations and covering the entire length of its line of defense. Colonel E. P. Alexander stated the artillery was so well emplaced that, "A chicken could not live on that field when we open on it."[2] Lieutenant General Thomas J. "Stonewall" Jackson, commander of Lee's Second Corps, described the effects of his corps artillery fire, "When the fourteen guns opened, pouring such a storm of shot

and shell into his ranks as to cause him first to halt, then to waiver, and at last seek shelter by flight."[3] Lieutenant General James Longstreet, First Corps commander, described similar effects from his corps artillery, "This fire was very destructive and demoralizing in its effects, and frequently made gaps in the enemy's ranks that could be seen at the distance of a mile."[4] Federal forces made six attempts to penetrate Lee's lines.[5] Colonel J. B. Walton, one of Longstreet's artillery battalion commanders observed, "Again and again did their heavy masses come forth from the town, only to be mowed down and scattered in confusion as each time they formed and advanced." "They fell by thousands under the judicious, steady, and unerring fire of my guns."[6] Longstreet mentioned the carnage, "At each attack the slaughter was so great that by the time the third attack was repulsed, the ground was so thickly strewn with dead that the bodies seriously impeded the approach of the Federals . . . The dead were piled sometimes three deep, and when morning broke, the spectacle that we saw upon the battle-field was one of the most distressing I ever witnessed."[7]

The Army of Northern Virginia's artillery fire was equally effective at the Battle of Cold Harbor. Brigadier General E. M. Law described the awful scenes after Cold Harbor, "I had seen the dreadful carnage in front of Marye's Hill at Fredericksburg…but I had seen nothing to exceed this." "It was not war; it was murder."[8] Law continued, "Our artillery was handled superbly during the action … reaching not only the front of the attacking force, but its flanks also, as well as those of the supporting troops."[9] Federal reports substantiated these claims. In several correspondences to Major General George Meade, Major General Winfield S. Hancock, commanding the Union Second Corps, complains of Confederate artillery fire enfilading his corps lines and preventing an

assault.[10] Major General William F. Smith, commanding the Union Eighteenth Corps, also stated that artillery fire enfiladed his front and requested ammunition to try to silence it.[11] Lieutenant General Ulysses S. Grant, commander of all Federal forces during the battle, estimated the casualties at Cold Harbor in excess of 10,000 men. Discussing the battle Grant stated, "I have always regretted that the last assault at Cold Harbor was made." "At Cold Harbor no advantage whatever was gained to compensate for the heavy loss we sustained."[12]

Although artillery was less effective when used offensively, there were notable exceptions. The Army of Northern Virginia achieved the most successful use of artillery offensively by Confederate forces was during the Battle of Chancellorsville, Virginia, on 1-4 May 1863. Lee's forces again effectively massed its fires. Major William J. Pegram described the effects of his artillery fire while moving his batteries forward into abandoned Union positions. Pegram explained, "I placed all of the guns in position at that point, and opened an oblique fire on the enemy's batteries . . . The firing was accurate, and had a telling effect on the enemy's batteries, exploding several ammunition chests, killing a number of horses, and soon driving them away from their guns."[13] Major Pegram continued, "A murderous fire was kept up on them, killing and wounding a very large number, until our infantry came up on their flanks, and we drove them entirely off from this position."[14] Federal forces did not miss the effect of the artillery fire. Union Major General Darius N. Couch stated, "With such precision did the artillery of Jackson's old corps play upon this battery that all of the officers and most of the non-commissioned officers and men were killed or wounded."[15] Colonel Henry Cabell, commander of one of Lee's artillery battalions, said the enemy's casualties from Marye's

Hill to Telegraph Road numbered approximately 1,000 to 2,000 killed or wounded. Cabell concluded, "This latter loss was inflicted entirely by artillery."[16] Summing up his thoughts on the battle, Major General A. P. Hill explained, "Much is due the artillery."[17] Colonel E. P. Alexander made his opinion of the effectiveness of artillery during the battle clear. He argued, "I consider the part borne by the artillery, in its prompt and thorough co-operation with the gallant assaults of the infantry, as the most brilliant page of its history."[18]

Clearly, when comparing the field artillery corps of the Army of Northern Virginia with its counterpart in the Army of Tennessee, the eastern force was much more effective both on and off the battlefield. The field artillery corps of Robert E. Lee's army built its formations on a much more solid foundation than did the Army of Tennessee. Lee's artillery had a much stronger militia core to build upon and its militia artillery began the war better equipped. The leadership of the militia foundation for the Army of Northern Virginia's field artillery corps was more highly trained and experienced than its western counterpart. Lee's army was also more successful in recruiting for the field artillery corps. In the east, joining artillery units was viewed in a much more positive light. The strength numbers and recruiting for each respective army's field artillery corps bear this out. Not only was strength and recruiting important, but so was the army's relationship with the Confederate government.

Relations with the Confederate government also favored the field artillery corps of the Army of Northern Virginia. Under the leadership of Robert E. Lee, Virginia's militia forces transferred smoothly to Confederate control. This was not the case in the western force. Gideon Pillow, commander of the Provisional Army of Tennessee,

protested the transfer and the State of Tennessee fought with the national government over the promotion of artillery officers. These actions laid a foundation of poor cooperation between the government and the leadership of the Army of Tennessee that hindered its operations during the war. In contrast, Lee laid the groundwork for an excellent relationship with the government that proved very beneficial to his army and its artillery corps. Interaction with the Confederate government included relations with the army's senior commanders.

The senior leadership of each army was also greatly responsible for the effectiveness, or lack thereof, of each field artillery corps. In general, the senior leadership of the Army of Northern Virginia was much more capable and possessed a higher degree of professionalism than the leadership in the Army of Tennessee. Robert E. Lee commanded the Army of Northern Virginia exclusively throughout the rest of the war after Joseph E. Johnston's wounding on 31 May 1862. Lee established a close working relationship with Confederate President Jefferson Davis. This relationship benefited Lee's army on numerous occasions. Davis did not micromanage Lee as he often did his commanders in the west. Davis did everything he could to support Lee; most importantly he supported Lee when he wanted to rid himself of inferior subordinate commanders. Davis did not do the same for his commanders of the Army of Tennessee.

In contrast to the Army of Northern Virginia, five different men commanded the Army of Tennessee. Its first commander, Albert Sidney Johnston, was very close friends with President Davis. Unfortunately, for Johnston, Davis was also close friends with Leonidas Polk, one of Johnston's subordinate commanders. Polk was both incompetent and insubordinate and fostered a toxic environment in the army that persisted until the

end of the war. Davis' failure to remove Polk from the Army of Tennessee proved very costly for that army. Following the death of Albert Sidney Johnston at the Battle of Shiloh, on 6-7 April 1862, Pierre G. T. Beauregard took command of the Army of Tennessee. Beauregard lasted less than two months. He was replaced after leaving his command, without permission, to check into a spa in Mobile, Alabama. The next commander of the Army of Tennessee was Braxton Bragg. Bragg disliked Davis. Davis' feelings for Bragg were probably not much warmer. They had a terrible relationship and the army suffered accordingly. Davis continued his failure to remove incompetent subordinate commanders under Bragg, most notably Leonidas Polk. Following numerous defeats, culminating with disasters around Chattanooga on 23-25 November 1863, Davis replaced Bragg with Joseph E. Johnston. Johnston did not care much for Davis either and the poor relationship between the senior army commander and the Confederate government continued. Johnston withdrew to the doorstep of Atlanta and was replaced by John Bell Hood. Hood, although close to Davis, was not ready for command. However, he was not afraid to fight and knew nothing else to do but attack. Hood subsequently destroyed his army, and its field artillery corps, pounding it against superior Federal forces.

At the beginning of the war, the state of Virginia far outstripped the state of Tennessee in terms of ordnance. Virginia had in its possession 290 field artillery pieces before the war began. By comparison, the Nashville armory in Tennessee had four field guns when the war began; two of these were unserviceable. The vast difference in ordnance between the states transformed into ordnance equipping differences in each of the respective field artillery corps. For example, in October 1862 the Army of Northern

Virginia had 273 weapons in its field artillery corps. The Army of Tennessee only had 125 pieces by March 1863. This disparity in ordnance only got worse as the war progressed. To make matters worse for the Army of Tennessee, the Army of Northern Virginia had in its area of operation the only plant in the South capable as a cannon foundry and rolling mill, the Richmond Tredegar Works. No other plant in the Confederacy had produced a cannon or its ammunition in over fifty years and the arsenal completely supplied the Army of Northern Virginia during the war.

Both armies began the war with inferior or obsolete weapons, primarily six-pound and twelve-pound smoothbores. However, there was a great deal of difference in the army's ability to replace these obsolete guns with twelve-pound Napoleons in order to modernize their field artillery corps. By August 1863, the Army of Northern Virginia had replaced all of its obsolete smoothbore guns with Napoleons or rifled weapons. Thirty-two percent of the Army of Tennessee's field artillery corps was categorized as obsolete as late as April 1864.

Supplementing its field artillery corps with captured Federal weapons was another way the two armies modernized their respective forces. Here again the Army of Northern Virginia, being more successful on the battlefield, comes out on top. The five battles in which the Army of Northern Virginia captured its largest number of Federal weapons netted the army 193 artillery pieces. By comparison, the three battles in which the Army of Tennessee captured Federal guns only netted the army eighty-six weapons. There was also a vast difference in the army's abilities to retain its weapons. As late as January 1865 the Army of Northern had in its field artillery corps 282 weapons. Because of losses on the battlefield, by December 1864, the Army of Tennessee could only muster

fifty-nine weapons in its field artillery corps. Not only was there a problem with inferior or obsolete weapons, inferior gunpowder also hampered Southern artillery.

Inferior gunpowder and fuses negatively affected each army equally. However, the Army of Northern Virginia more quickly identified an issue with the Bormann time fuse and switched to paper fuses to rectify the issue. The Army of Tennessee continued to use the Bormann time fuse despite its identified problems. Premature detonation of rounds, due to defective fuses, resulted in artillery hesitant to fire over the heads of infantry to support its assaults. The lack of ammunition and ordnance also had a detrimental impact on each army's ability to train.

Training of the respective field artillery corps was certainly not what it should have been. Issues negatively effecting training in the Army of Northern Virginia primarily concerned the lack of ammunition. In the Army of Tennessee, the dearth in training was the result of a lack of ammunition and ordnance. However, numerous references were found describing training at the battery level in the Army of Northern Virginia. There were virtually no references found detailing similar training in the field artillery corps in the Army of Tennessee. Combat is a substitute for training. The field artillery corps of the Army of Northern Virginia saw its first action in July 1861. Their counterpart in the Army of Tennessee did not see combat until April 1862, nearly nine months later. In addition to the aforementioned reasons, artillery leadership also gave the Army of Northern Virginia's field artillery corps an advantage over its counterpart in the Army of Tennessee.

Robert E. Lee took great interest in his artillery and continuously sought to improve its effectiveness and directed his subordinates accordingly. He corresponded

frequently about his artillery corps with the government in Richmond concerning matters from ammunition quality and quantity, organization, and weapon modernization. Lee also had the advantage of subordinate officers who understood the importance of artillery on the battlefield. Men such as General Thomas J. "Stonewall" Jackson. Jackson taught artillery tactics at the Virginia Military Institute before the war. Brigadier General Edward Porter Alexander had great insight into the need to move the field artillery corps from a brigade-battery organization to one based on battalions. Brigadier General William Nelson Pendleton was very helpful to Lee as an administrator, inspector, and re-organizer of his field artillery corps. Other men such as Major John Pelham, Colonel J. Thompson Brown, Colonel S. Crutchfield, Colonel R. L. Walker, Colonel J. B. Walton, Lieutenant Colonel Thomas H. Carter, and Lieutenant Colonel R. S. Andrews all won great fame in the field artillery corps of the Army of Northern Virginia during the war.

The Army of Tennessee had no such similar artillery leaders in its field artillery corps. The quibbling and backstabbing that negatively affected the army also influenced its field artillery corps. The army's leadership, primarily General Braxton Bragg, had a policy of promoting and placing artillery officers into leadership positions based on loyalty to him rather than on performance. Bragg and other senior leaders were slow to adopt and push for changes that were occurring in the field artillery corps of the Army of Northern Virginia. In addition to leadership in the respective field artillery corps, organization was also a crucial aspect in the effectiveness of each force.

Early in the war, all armies, both Confederate and Federal, based its field artillery organization on a brigade-battery structure. This organization placed a single artillery battery with an infantry brigade. It severely limited the artilleries ability to mass its fires.

The Army of Northern Virginia was first to recognize this limitation and began to reorganize its field artillery corps as early as June 1862. As early as September 1862 Lee began to move his artillery batteries from infantry brigades and place them under infantry divisions, however they were not called battalions at this time. In February 1863, Lee's army was first to create artillery battalions placed under infantry divisions, as well as creating two reserve artillery battalions for the army. By June 1863, Lee had realized the reserve artillery battalions at the army level were ineffective and unresponsive and pushed them down to the corps level. The responsiveness of the reserve artillery battalions improved little, in August 1863 they were disbanded, and the battalions were pushed down to division level. The creation of artillery battalions greatly improved the effectiveness of the field artillery corps on the battlefield.

At the beginning of the war, the field artillery corps of the Army of Tennessee had little organization. As late as January 1863 the Army of Tennessee rigidly adhered to the brigade-battery organization, while nearly four months earlier Lee had moved away from this organization. A full year after Lee, in September 1863, the Army of Tennessee began to place artillery batteries under infantry divisions. However, it was not until November 1863 that the Army of Tennessee first began to create artillery battalions, also nearly a full year after the Army of Northern Virginia. The artillery battalion organization was not fully adopted by the Army of Tennessee until March 1864, well over a year after it had been adopted in the Army of Northern Virginia.

Examination of the foundation of each army, including militia strength, equipment, recruiting, and relations with the Confederate government, all favor the Army of Northern Virginia in comparison to the Army of Tennessee. The senior leadership of

Lee's army also had much better relations with the Confederate government and with their commander. The Army of Northern Virginia began the war with more ordnance than did the Army of Tennessee and because of better performance on the battlefield was able to capture much more Federal ordnance to replace its obsolete and inferior weapons. Robert E. Lee placed great emphasis on his artillery and pushed Richmond for its modernization much greater than did the leaders of the Army of Tennessee. Lee and his artillery leadership recognized early the need for a better and more efficient organization of his field artillery corps and pushed Richmond to make it happen. The Army of Tennessee was slow to recognize this and even failed to follow the example of Lee's army in a timely manner. Tactically, the field artillery corps of the Army of Northern Virginia was much more capable of executing its mission on the battlefield. Clearly, when one examines all of the measures of effectiveness and performance that affected each field artillery corps, the field artillery corps of the Army of Northern Virginia was the Confederate King of Battle during the American Civil War.

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[1] George G. Meade, *Life and Letters of George Gordon Meade: Major-General United States Army* (New York: Charles Scribner's Son's, 1913), 201.

[2] James Longstreet, "The Battle of Fredericksburg," *Battles and Leaders of the Civil War: Grant-Lee Edition* vol. III, pt. I, 79.

[3] *The War of The Rebellion: A Compilation of the Official Records of the Union and Confederate Armies.* (Washington: Government Printing Office, 1880-1901), vol. XXI, 631. (hereafter cited as O.R.; unless otherwise indicated, all citations are to Series I)

[4] O.R., vol. XXI, 570.

[5] Longstreet, 81.

[6] O.R., vol. XXI, 574.

[7] Longstreet, 79-81, 82.

[8] E. M. Law, "From the Wilderness to Cold Harbor," *Battles and Leaders of the Civil War: Grant-Lee Edition* vol. IV, pt. I, 141.

[9] Law, 141.

[10] O.R., vol. XXXVI, pt. III, 530-532.

[11] O.R., vol. XXXVI, pt. III, 555.

[12] Ulysses S. Grant, *Personal Memoirs of U. S. Grant* (Cleveland: The World Publishing Company, 1952), 452, 444-445.

[13] O.R., vol. XXV, pt. I, 938.

[14] O.R., vol. XXV, pt. I, 938.

[15] Darius N. Couch, "The Chancellorsville Campaign," *Battles and Leaders of the Civil War: Grant-Lee Edition* vol. III, pt. I, 167-168.

[16] O.R., vol. XXV, pt. I, 843.

[17] O.R., vol. XXV, pt. I, 886.

[18] O.R., vol. XXV, pt. I, 824.

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